

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES
DEPARTMENT 308 HON. CHARLES W. MC COY, JUDGE
RICHARD BOEKEN,)

)
PLAINTIFF,)

)
VS.) SUPERIOR COURT
) CASE NO. BC 226593
PHILIP MORRIS, INCORPORATED,)
A CORPORATION; INTERNATIONAL HOUSE)
OF PANCAKES, INCORPORATED, A)
CORPORATION,)

)
DEFENDANTS.)

)
REPORTER'S DAILY TRANSCRIPT OF PROCEEDINGS
THURSDAY, APRIL 19, 2001 A.M. SESSION
VOLUME 20A

PAGES 2937 THROUGH 3053, INCLUSIVE
APPEARANCES:

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I N D E X

THURSDAY, APRIL 19, 2001..... 1:2937:3

9:15 A.M..... 1:2937:7

WITNESS

GARY STRAUSS

DIRECT EXAMINATION BY MR. PIUZE..... 1:2938:25

CROSS-EXAMINATION BY MR. CARLTON..... 1:3024:1

EXHIBITS

I.D. 8002.100 - STRAUSS TABLE 11..... 1:2976:26

I.D. 8002.101 - STRAUSS TABLE 12..... 1:2977:8

I.D. 8002.102 - STRAUSS TABLE 9..... 1:3007:22

I.D. 8002.103 - STRAUSS TABLE 10..... 1:3008:1

2937

1 CASE NUMBER: BC 226593

2 CASE NAME: BOEKEN V. PHILIP MORRIS

3 LOS ANGELES, CALIFORNIA THURSDAY, APRIL 19, 2001

4 DEPARTMENT 308 HON. CHARLES W. MC COY, JUDGE

5 APPEARANCES: (AS NOTED ON TITLE PAGE.)

6 REPORTER: LINDA STALEY, CSR NO. 3359, RMR, CRR

7 TIME: 9:15 A.M.

8

9 - - O - -

10

11 (THE FOLLOWING PROCEEDINGS WERE HELD

12 IN OPEN COURT OUT OF THE PRESENCE

13 OF THE JURY:)

14

15 THE COURT: WE'RE OUTSIDE THE PRESENCE.

16 YOU NEEDED TO SEE ME.

17 MR. LE BERTHON: WE DO.

18 AN ISSUE HAS ARISEN REGARDING THE PRODUCTION OF
19 CERTAIN EXPERT DOCUMENTS. WE HAVE AN OUTSTANDING DOCUMENT
20 REQUEST FOR THE COMPLETE FILES MAINTAINED BY EACH OF THE
21 PLAINTIFF'S EXPERT WITNESSES.

22 ON SATURDAY, WE TOOK THE DEPOSITION OF
23 BERNARD LEWAK. HE'S A CPA AND A DAMAGE WITNESS.

24 THE COURT: RATHER THAN GET INTO THIS -- IT'S 9:15.

25 I'VE GOT A JURY OUT THERE. WE'RE LATE AS IT IS. LET'S DO
26 THIS AT THE FIRST BREAK.

27 JURY, PLEASE.

28 /

2938

1 (THE FOLLOWING PROCEEDINGS WERE HELD
2 IN OPEN COURT IN THE PRESENCE
3 OF THE JURY:)

4

5 THE COURT: GOOD MORNING, LADIES AND GENTLEMEN.
6 OUR JURY PANEL IS WITH US; COUNSEL ARE PRESENT;
7 THERE IS A WITNESS ON THE STAND.

8 HE NEEDS TO BE SWORN.

9 MR. PIUZE: YES, SIR.

10 THE COURT: SIR, IF YOU WOULD PLEASE RISE.

11 FACE MY CLERK RIGHT THERE.

12 RAISE YOUR RIGHT HAND AND BE SWORN AS A WITNESS
13 IN THIS MATTER.

14

15 GARY STRAUSS,

16 CALLED AS A WITNESS BY THE PLAINTIFFS, HAVING BEEN FIRST DULY
17 SWORN, TESTIFIED AS FOLLOWS:

18

19 THE CLERK: YOU MAY BE SEATED FIRST.

20 FOR THE RECORD, IF YOU COULD PLEASE STATE AND
21 SPELL YOUR LAST NAME.

22 THE WITNESS: MY NAME IS GARY STRAUSS, S-T-R-A-U-S-S.

23 THE CLERK: THANK YOU.

24

25 DIRECT EXAMINATION

26 BY MR. PIUZE:

27 Q. GOOD MORNING.

28 A. GOOD MORNING.

2939

1 Q. DID YOU COME TO LOS ANGELES LAST NIGHT?

2 A. I DID.

3 Q. FROM?

4 A. FROM -- I FLEW OUT OF BOSTON. I LIVE IN
5 [DELETED] NOW.

6 Q. [DELETED]?

7 A. [DELETED], YES.

8 Q. AND DID YOU COME OUT HERE IN ORDER TO TESTIFY
9 FOR THE JURY IN THIS CASE?

10 A. I DID.

11 Q. ARE YOU GOING TO TESTIFY REGARDING CERTAIN
12 TYPES OF CANCER AND THEIR CAUSES?

13 A. YES, I AM.

14 Q. AND ARE YOU GOING TO TESTIFY CONCERNING CERTAIN
15 STATISTICS THAT HAVE TO DO WITH CANCER AND CAUSES?

16 A. YES, I AM.

17 Q. AND ARE YOU GOING TO TESTIFY REGARDING

18 STATISTICS REGARDING TOBACCO AND WHERE AND HOW IT'S USED?

19 A. YES, I AM.
20 Q. I'D LIKE TO START OFF BY QUALIFYING YOU TO TALK
21 ABOUT SOME OF YOUR QUALIFICATIONS. NOT ALL OF THEM NOW, BUT
22 SOME FOR THE JURY.
23 SO LET'S START WITH THIS: WHAT'S YOUR
24 OCCUPATION?
25 A. I AM A PHYSICIAN, BUT ALSO AN EPIDEMIOLOGIST.
26 Q. WHAT KIND OF -- THE ANSWER TO THIS QUESTION WAS
27 GOOD -- WHAT KIND OF A PHYSICIAN ARE YOU?
28 A. I'M A MEDICAL ONCOLOGIST.
2940
1 Q. TELL THE JURY YOUR ACADEMIC BACKGROUND THAT
2 ALLOWS YOU TO BE A MEDICAL ONCOLOGIST.
3 AND LET'S LEAVE THE EPIDEMIOLOGY FOR LATER,
4 PLEASE.
5 A. OKAY. I WENT TO MEDICAL SCHOOL. I GRADUATED
6 FROM YALE MEDICAL SCHOOL IN 1972.
7 I THEN DID SEVEN YEARS OF TRAINING AFTER
8 GRADUATING FROM MEDICAL SCHOOL THAT INCLUDED INTERNSHIP AND
9 RESIDENCY IN MEDICINE.
10 I WAS AT THE NATIONAL CANCER INSTITUTE AND THE
11 INVESTIGATIONAL DRUG BRANCH FOR TWO YEARS.
12 AND THEN I WAS A HEMATOLOGY/ONCOLOGY FELLOW AT
13 MASSACHUSETTS GENERAL HOSPITAL IN BOSTON.
14 COMPLETED MY TRAINING, WHICH WAS COMPLETE IN
15 1979, IN TERMS OF THAT.
16 Q. THANK YOU.
17 LET'S GO THROUGH THAT AGAIN AND PUT A LITTLE
18 MORE DETAIL ON IT. ALL RIGHT?
19 A. YES.
20 Q. WHERE DID YOU GO TO COLLEGE?
21 A. I WENT TO QUEENS COLLEGE IN NEW YORK.
22 Q. WHAT YEAR DID YOU GET OUT OF YALE MEDICAL
23 SCHOOL?
24 A. 1972.
25 Q. IN THE SEVEN YEARS AFTER YOU GOT OUT OF YALE
26 MEDICAL SCHOOL, TELL THE JURY WHAT YOU WERE DOING TO FURTHER
27 YOUR EDUCATION, WHERE YOU WERE DOING IT, PLEASE?
28 A. FOR THE FIRST TWO YEARS, I WAS AT THE HARVARD
2941
1 SERVICE AT BOSTON CITY HOSPITAL. I WAS AN INTERN AND THEN A
2 JUNIOR RESIDENT IN MEDICINE. THAT WAS 1972 TO 1974.
3 1974, I WENT TO THE NATIONAL CANCER INSTITUTE
4 WHERE I WAS IN THE INVESTIGATIONAL DRUG BRANCH. ABOUT THREE
5 QUARTERS OF THE 18 MONTHS OF THAT WAS ADMINISTRATIVE AND
6 INVESTIGATIONAL. SIX MONTHS WAS CLINICAL. THAT COMPLETED IN
7 1976.
8 I THEN MOVED FROM BETHESDA BACK TO BOSTON WHERE
9 I SPENT THE NEXT THREE YEARS AT MASS GENERAL HOSPITAL. 1976,
10 '77, I WAS SENIOR RESIDENT IN MEDICINE, AND THEN INTO 1977
11 THROUGH 1979, I WAS A FELLOW IN HEMATOLOGY/ONCOLOGY.
12 Q. OKAY. NOW, MASS GENERAL HOSPITAL, IS THAT
13 AFFILIATED WITH HARVARD YALE SCHOOL?
14 A. YES, IT IS.
15 Q. AT MASS GENERAL HOSPITAL, IS THERE A SUBPART
16 THERE CALLED THE DANA FARBER CANCER INSTITUTE?
17 A. NO. IT'S ACTUALLY A SEPARATE INSTITUTION ABOUT
18 THREE MILES AWAY.
19 Q. SO I HAVEN'T GOTTEN TO THAT POINT YET.
20 A. RIGHT.
21 Q. WHAT'S A FELLOW?
22 A. A FELLOW --
23 Q. LET'S STAY AT MASS GENERAL HOSPITAL.

24 A. RIGHT. A FELLOW IS SOMEBODY WHO IS A PHYSICIAN
25 WHO ACTUALLY IS TRAINED IN A SPECIALTY.
26 INTERNAL MEDICINE, PEDIATRICS, SURGEON, ARE
27 SPECIALTIES OF MEDICINE. YOU ARE A FELLOW WHEN YOU WANT TO
28 BECOME A SUBSPECIALIST. SO I WAS INTERESTED IN BECOMING A
2942
1 MEDICAL ONCOLOGIST, BECOMING AN EXPERT IN THE TREATMENT OF
2 CANCER.
3 Q. SO YOU SPENT TWO YEARS DOING YOUR FELLOWSHIP AT
4 MASS GENERAL HOSPITAL?
5 A. THAT'S CORRECT.
6 Q. WHAT YEAR DID YOU COMPLETE THAT?
7 A. 1979.
8 Q. WHAT'S A MEDICAL ONCOLOGIST?
9 A. A MEDICAL ONCOLOGIST IS A PHYSICIAN WHO CARES
10 FOR PATIENTS WITH CANCER. AND WE ARE EXPERTS IN THE
11 TREATMENT OF CANCER TO THE EXTENT THAT WE ACTUALLY TREAT
12 CANCER. A MEDICAL ONCOLOGIST WOULD TREAT PATIENTS WITH DRUG
13 THERAPY. USUALLY, CHEMOTHERAPY, BUT SOMETIMES, HORMONAL
14 THERAPY.
15 THAT IS TO BE DISTINGUISHED BY A MEDICAL
16 ONCOLOGIST THAT TREATS CANCER WITH CHEMOTHERAPY OR HORMONE
17 THERAPY; A RADIATION ONCOLOGIST THAT DOES RADIATION; A
18 SURGICAL ONCOLOGIST WHO DOES SURGERY. THOSE THREE
19 DISCIPLINES INTERACT VERY MUCH IN THE MANAGEMENT OF PATIENTS.
20 Q. THANK YOU.
21 YOU'VE BEEN A MEDICAL ONCOLOGIST FOR HOW LONG?
22 A. 22 YEARS. ALTHOUGH, I TOOK A ONE-YEAR PERIOD
23 WHERE I WAS NOT DOING THE TREATMENT OF --
24 Q. WE'RE GOING TO TALK ABOUT THE ONE-YEAR PERIOD
25 LATER.
26 FOR 22 YEARS, HAVE YOU BEEN TREATING PEOPLE
27 WITH CANCER?
28 A. YES.
2943
1 Q. NOW, AFTER A COUPLE OF YEARS OF FELLOWSHIP AT
2 MASS GENERAL HOSPITAL, DID YOU HAVE FURTHER EDUCATIONAL
3 BACKGROUND AGAIN?
4 I WANT TO STAY AWAY FROM EPIDEMIOLOGY NOW.
5 A. OKAY.
6 Q. WAS THERE FURTHER EDUCATIONAL BACKGROUND AT
7 THAT POINT?
8 A. WELL, THERE ARE -- I WAS AT ACADEMIC
9 INSTITUTIONS, SO -- AND MOREOVER, TO MAINTAIN YOUR
10 ACCREDITATION, ONE NEEDS TO HAVE A CERTAIN AMOUNT OF CREDITS,
11 PER SE, BUT IT'S NOT NORMAL COURSE WORK THAT ONE TAKES.
12 Q. OKAY. THANK YOU.
13 WHEN YOU SAY YOU WERE IN ACADEMIC INSTITUTIONS,
14 YOU WEREN'T TAKING COURSES.
15 DOES THAT MEAN YOU WERE TEACHING?
16 A. YES. AND DOING RESEARCH.
17 Q. SO HAVE YOU BEEN A PROFESSOR AT MEDICAL
18 SCHOOLS?
19 A. I HAVE BEEN AN ASSOCIATE PROFESSOR. I WILL
20 SOON BE A PROFESSOR, I BELIEVE.
21 Q. WHY DON'T YOU TELL THE JURY THE DIFFERENCE
22 BETWEEN AN ASSOCIATE PROFESSOR AND A PROFESSOR?
23 A. WELL, THERE -- ACTUALLY, THERE'S AN ASSISTANT
24 PROFESSOR, ASSOCIATE PROFESSOR AND FULL PROFESSOR. THAT IS
25 THE HIERARCHY OF RANK.
26 I WAS AT U. MASS FROM, ACTUALLY, 1980 THROUGH
27 1990 WHERE I WAS INITIALLY AN ASSISTANT AND AN ASSOCIATE
28 PROFESSOR OF MEDICINE THROUGHOUT MOST OF THE -- MOST OF THAT

2944

1 PERIOD. I THEN LEFT THAT INSTITUTION AND SPENT MOST OF THE
2 NEXT DECADE WORKING THE HARVARD SYSTEM.

3 Q. THE HARVARD SYSTEM?

4 A. YES.

5 Q. SO I KNOW WHAT U. MASS IS --

6 A. YES.

7 Q. -- AS YOU KNOW.

8 A. YES.

9 Q. BUT TELL THEM WHAT U. MASS IS?

10 A. U. MASS -- WELL, U. MASS IS UNIVERSITY OF
11 MASSACHUSETTS. IT'S A UNIVERSITY, BUT THERE IS A MEDICAL
12 SCHOOL THAT IS IN WORCESTER, MASSACHUSETTS.

13 Q. SO YOU SPENT MOST OF THE DECADE OF THE --

14 A. I WAS THERE FROM 1980 TO -- JULY 1980 TO
15 APRIL 1990.

16 Q. TEN YEARS AS PROFESSOR AT U. MASS, ASSISTANT OR
17 ASSOCIATE PROFESSOR?

18 A. CORRECT, YES.

19 Q. DID YOU TREAT PEOPLE DURING THAT TIME?

20 A. YES.

21 Q. DID YOU HAVE A PRIVATE PRACTICE DURING THAT
22 TIME?

23 A. NO.

24 Q. YOU TREATED THEM IN AN ACADEMIC SETTING?

25 A. YES.

26 Q. EXPLAIN TO THE JURY WHAT THAT MEANS, PLEASE?

27 A. IT MEANS THAT -- WELL, I'VE ALWAYS -- FOR ONE
28 YEAR AFTER I FINISHED MY FELLOWSHIP, FROM 1979, 1980, I
2945

1 ACTUALLY WAS IN A PRIVATE PRACTICE, BUT AFTER THAT, I'VE
2 NEVER BEEN IN PRIVATE PRACTICE. I'VE ALWAYS BEEN AN EMPLOYEE
3 OF SOME INSTITUTION.

4 SO I GET A SALARY, AND I TREAT PATIENTS. BUT
5 YOU KNOW, THE POSITIONS THAT I'VE HAD HAVE ALWAYS INVOLVED
6 PATIENT CARE, TEACHING MEDICAL STUDENTS, THOSE WHO ARE
7 TRAINING IN MEDICINE AND THOSE WHO ARE TRAINING IN
8 FELLOWSHIP. AND I'VE BEEN VERY ACTIVELY INVOLVED IN RESEARCH
9 DURING MY ENTIRE CAREER.

10 Q. ALL RIGHT. I'M GOING TO COME BACK TO RESEARCH
11 IN A BIT.

12 A. YES.

13 Q. SO WE'VE COVERED TEN YEARS, '80 TO '90 ROUGHLY.

14 A. YES.

15 Q. UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL?

16 A. YES.

17 Q. IN THE NEXT TEN YEARS, YOU SAID YOU WERE IN THE
18 HARVARD SYSTEM?

19 A. YES.

20 Q. EXPLAIN WHAT THAT MEANS, PLEASE?

21 A. WELL, I ACTUALLY LEFT WORCESTER IN 1990 AND
22 ACTUALLY HAD, ACTUALLY, THREE SORT OF POSITIONS.
23 I WENT TO HARVARD COMMUNITY HEALTH PLAN IN
24 1990, WHICH WAS A HEALTH MAINTENANCE ORGANIZATION, BUT THE
25 HOSPITAL AFFILIATIONS WERE THE BRIGHAM'S WOMEN'S HOSPITAL AND
26 BETH ISRAEL HOSPITAL IN BOSTON, WHICH ARE MAJOR HARVARD
27 TEACHING HOSPITALS.

28 AND THEN AFTER THREE YEARS, I WAS ACTUALLY
2946

1 RECRUITED TO GO TO THE FARBER AND THE BRIGHAM. SO FROM 1993
2 TO 1997, I WAS ACTUALLY AT THE BRIGHAM'S WOMEN'S HOSPITAL AND
3 THE DANA FARBER, WHICH ARE DIFFERENT THAN MASS GENERAL.

4 Q. PEOPLE OUT HERE ON THE WEST COAST MIGHT NOT

5 RECOGNIZE THOSE NAMES --
6 A. YES. YES.
7 Q. -- THE DANA FARBER CANCER INSTITUTE IN BOSTON,
8 IS THAT SORT OF A RENOWN KIND OF PLACE?
9 A. IT IS, YES.
10 Q. JUST TALK A LITTLE BIT ABOUT IT, PLEASE?
11 A. WELL, IT WAS NAMED AFTER SIDNEY FARBER WHO
12 DEVELOPED SOME OF THE INITIAL TREATMENTS FOR CHILDHOOD
13 LEUKEMIA AND HAS BEEN A MAJOR CANCER INSTITUTION FOR -- SINCE
14 THE EARLY 1970'S.
15 IT BECAME THE DANA FARBER INSTITUTE WHEN THE
16 DANA FARBER FAMILY DONATED A LOT OF MONEY. AND ACTUALLY, ON
17 THE EAST COAST, THERE HAVE ACTUALLY BEEN -- DANA FARBER AND
18 THE BRIGHAM'S WOMEN'S HOSPITAL WERE ACROSS THE STREET FROM
19 EACH OTHER. I WAS ACTUALLY ON BOTH STAFFS. I WAS ACTUALLY
20 THE ONLY PERSON ON BOTH STAFFS, EVEN THOUGH THEY WERE
21 SOMEWHAT IN COMPETITION. BUT THEY ACTUALLY HAVE FORMALLY
22 MERGED, I BELIEVE, IN 1996.
23 SO THE DANA FARBER HAD BEEN ACTUALLY A HOSPITAL
24 FOR MANY YEARS. THEY'RE ACROSS THE STREET. SO RIGHT NOW,
25 THE DANA FARBER IS NO LONGER AN INPATIENT FACILITY. IT
26 SEES OUTPATIENTS, BOTH CHILDREN AND ADULTS. THE ADULTS, WHEN
27 THEY'RE HOSPITALIZED, THEY'RE ACTUALLY HOSPITALIZED IN THE
28 DANA FARBER CANCER INSTITUTE -- I'M SORRY -- IN THE BRIGHAM
2947
1 WOMEN'S HOSPITAL, WHICH IS RIGHT ACROSS THE STREET. AND
2 CHILDREN ARE HOSPITALIZED AT BOSTON CHILDREN'S HOSPITAL.
3 Q. SO WHAT USED TO BE FARBER AND IS NOW
4 DANA FARBER IS CANCER TREATMENT ONLY?
5 A. THAT'S CORRECT. AND CANCER RESEARCH.
6 Q. AND CANCER RESEARCH?
7 A. YES.
8 Q. AND IT'S THE HARVARD UNIVERSITY MEDICAL SCHOOL
9 TEACHING HOSPITAL FOR CANCER TREATMENT AND CANCER RESEARCH?
10 A. THAT IS CORRECT.
11 Q. NOW, WERE YOU A TEACHER DURING THE 90'S?
12 A. OH, YES.
13 Q. WHERE?
14 A. WELL, I WAS --
15 Q. AT THOSE HOSPITALS?
16 A. YES. I WAS ACTUALLY AN ASSISTANT PROFESSOR OF
17 MEDICINE AT HARVARD MEDICAL SCHOOL. AND THAT'S BEEN MY RANK
18 UNTIL NOW WHERE I'M BEING --
19 Q. THANK YOU.
20 A. IT'S A DIFFERENT INSTITUTION.
21 Q. I'M GOING TO COME BACK TO THAT IN A LITTLE
22 WHILE.
23 A. YES. RIGHT.
24 Q. HAVE YOU PUBLISHED?
25 A. YES.
26 Q. GIVE US AN IDEA OF WHAT YOU'VE PUBLISHED AND
27 HOW MUCH YOU'VE PUBLISHED, PLEASE?
28 A. I THINK I HAVE ABOUT ONE -- PROBABLY ABOUT 160
2948
1 TOTAL PUBLICATIONS, WHICH WE DIVIDE IN TERMS OF PEER REVIEW
2 PUBLICATIONS. BOOKS AND CHAPTERS WHICH ARE ALSO PUBLISHED.
3 BUT IT DOESN'T HAVE TO GO THROUGH A PROCESS. OFTEN, YOU'RE
4 INVITED TO WRITE SOMETHING. AND ABSTRACTS USUALLY THAT ARE
5 ASSOCIATED WITH NATIONAL OR INTERNATIONAL MEETINGS.
6 Q. HOW MANY PEER REVIEW PAPERS DO YOU HAVE?
7 A. I THINK IT'S IN THE 50'S -- I THINK IT'S 55 OR
8 SOMETHING.
9 Q. HOW MANY BOOKS AND CHAPTERS HAVE YOU WRITTEN?

10 A. PROBABLY 35 OR 40 --
11 Q. BOOKS OR CHAPTERS --
12 A. NO. I CONTRIBUTED TO BOOKS. I HAVE ACTUALLY
13 NOT WRITTEN AN ENTIRE BOOK BY MYSELF.
14 Q. WHAT'S THE SUBJECT MATTER OF YOUR WRITING,
15 PLEASE?
16 A. IT HAS PRIMARILY HAD TO DO WITH THE PREVENTION
17 AND EARLY DETECTION OF CANCER. I'VE ACTUALLY PROBABLY
18 WRITTEN MORE ABOUT SCREENING FOR LUNG CANCER THAN ANYBODY IN
19 THE WORLD, AT LEAST IN TERMS OF NUMBER OF PUBLICATIONS.
20 Q. HARVARD IS IN CAMBRIDGE, MASSACHUSETTS?
21 A. NO -- YES. BUT HARVARD MEDICAL SCHOOL IS IN
22 BOSTON.
23 Q. BUT YOU'RE IN [DELETED]?
24 A. YES.
25 Q. WHEN IS -- AND WHY DID YOU GO TO
26 [DELETED]?
27 A. WELL, IT RELATES TO WHAT I DID LAST YEAR. I
28 HAD BEEN A MEDICAL ONCOLOGIST -- LAST YEAR, I LEFT MY
2949
1 POSITION -- I ACTUALLY LEFT MY POSITION IN JUNE OF 1999 AND
2 WAS A FULL-TIME STUDENT FOR THE ACADEMIC YEAR JUNE '99
3 THROUGH -- JULY '99 THROUGH JUNE OF 2000.
4 I WAS AT THE HARVARD SCHOOL OF PUBLIC HEALTH
5 WHERE I DID A MASTER OF PUBLIC HEALTH. BECAUSE I WANTED TO
6 GET SOME FORMAL TRAINING. IF I CAN GIVE A BIT OF BACKGROUND
7 TO THAT.
8 AS SOMEONE WHO TREATS LUNG CANCER, I FELT FOR A
9 LONG TIME THE WAY TO MANAGE LUNG CANCER IS REALLY NOT THROUGH
10 TREATING IT WITH CHEMOTHERAPY, BUT THROUGH PREVENTION AND
11 EARLY DETECTION. SO I'VE GOTTEN VERY INVOLVED IN ISSUES
12 RELATED TO PUBLIC HEALTH, AND I FELT I NEEDED FORMAL TRAINING
13 IN THAT, EVEN THOUGH I LEARNED A GREAT DEAL. THAT WAS THE
14 MAJOR MOTIVATING FACTOR TO DO MY MASTER PUBLIC HEALTH.
15 AND I GOT MY MASTER PUBLIC HEALTH AT THE
16 HARVARD SCHOOL OF PUBLIC HEALTH LAST JUNE.
17 Q. LET ME --
18 A. YES.
19 Q. -- STOP YOU.
20 LET'S TALK ABOUT THAT --
21 A. YES.
22 Q. -- SUBJECT FOR A WHILE.
23 A. YES.
24 Q. AS SOMEONE WHO'S TREATED LUNG CANCER PATIENTS
25 OVER A 20-YEAR PERIOD, IT ISN'T JUST LUNG CANCER, IS IT?
26 A. IT'S NOT JUST LUNG CANCER, BUT PROBABLY I'D
27 LIKE TO THINK THAT I -- I'M AN ONCOLOGIST, BUT PEOPLE THAT --
28 I TREATED A LOT OF LUNG CANCER, PROBABLY -- PROBABLY THE TWO
2950
1 MOST -- THE TWO THINGS I'VE DONE MOST ARE LUNG CANCER AND
2 BREAST CANCER. PROBABLY A THIRD OF EACH AND THEN A THIRD
3 EVERYTHING ELSE.
4 Q. OKAY. SO OVER A 20-YEAR PERIOD, AS A MEDICAL
5 PROFESSOR AND A TREATING DOCTOR, A THIRD OF YOUR PATIENTS
6 HAVE BEEN LUNG CANCER PATIENTS?
7 A. YES.
8 Q. A THIRD OF YOUR PATIENTS HAVE BEEN BREAST
9 CANCER PATIENTS?
10 A. THAT'S A VERY ROUGH ESTIMATE, BUT I THINK SO.
11 Q. AND ANOTHER THIRD IS THE REST?
12 A. YES.
13 Q. LET'S TALK LUNG CANCER, BECAUSE THAT'S WHAT
14 WE'RE HERE FOR.

15 A. YES.
16 Q. WHY DO YOU SAY THAT THE BEST -- I CAN'T QUOTE
17 YOU BACK EXACTLY -- BUT THE BEST TREATMENT OF LUNG CANCER IS
18 PREVENTION OF LUNG CANCER?
19 A. WELL, AS A MEDICAL ONCOLOGIST, MY INTERESTS
20 HAVE BECOME PREVENTION AND EARLY DETECTION. BUT AS A
21 PROFESSIONAL MEDICAL ONCOLOGIST, I GOT TO SEE PATIENTS WITH
22 LUNG CANCER AFTER THEY'RE DIAGNOSED.
23 THE VAST MAJORITY OF PATIENTS WHO HAVE LUNG
24 CANCER HAVE ADVANCED DISEASE AND DIE OF THE DISEASE. TO THE
25 EXTENT THAT I WILL TREAT THESE PATIENTS, IT WILL BE WITH
26 CHEMOTHERAPY. CHEMOTHERAPY CAN BE HELPFUL IN IMPROVING
27 SOMEBODY'S DURATION OF LIFE, BUT CHEMOTHERAPY DOESN'T CURE
28 ANYBODY WITH LUNG CANCER -- OR ALMOST, IT CURES VIRTUALLY
2951
1 NOBODY WITH LUNG CANCER. SO IT'S A VERY FRUSTRATING
2 PROFESSION.
3 ON THE OTHER HAND, LUNG CANCER IS VIRTUALLY
4 COMPLETELY PREVENTABLE, BECAUSE THE VAST MAJORITY -- WE'RE
5 GETTING AHEAD OF OURSELVES NOW -- BUT THE VAST MAJORITY OF
6 LUNG CANCER IS RELATED TO CIGARETTE SMOKING, AND PLUS, AS A
7 SOCIETY, WE ACTUALLY DON'T SCREEN FOR LUNG CANCER. WE
8 DON'T -- AS OPPOSED TO BREAST CANCER OR PROSTATE CANCER WHERE
9 WE DO SCREENING.
10 AND IT'S WELL-KNOWN TO THE GROUP, KATIE COURIC
11 IS AN ADVOCATE FOR COLONO-RECTAL CANCER SCREENING. WE DON'T
12 SCREEN FOR LUNG CANCER. WE SHOULD. THE DATA IS THERE, AND I
13 BELIEVE THAT'S GOING TO CHANGE VERY SHORTLY.
14 Q. ONE OF THE THINGS YOU STATED IN YOUR EARLIER
15 SORT OF UMBRELLA ANSWER --
16 A. YES.
17 Q. -- WAS THAT YOU HAD BEEN INVOLVED IN PUBLIC
18 HEALTH OVER A PERIOD OF TIME BEFORE YOU WENT OUT AND GOT YOUR
19 FORMAL EDUCATION --
20 A. THAT'S CORRECT.
21 Q. -- AT THE HARVARD SCHOOL OF PUBLIC HEALTH.
22 I'D LIKE YOU TO EXPLAIN TO THE JURY HOW YOU HAD
23 BEEN INVOLVED IN PUBLIC HEALTH PRIOR TO 1999, PLEASE?
24 A. YES. WELL, ACTUALLY, IT ALL STARTED -- IT
25 ACTUALLY STARTED WITH THE PUBLICATION OF A SPECIFIC PAPER IN
26 1989 BY DR. DAVID EDDY, WHO I'VE SINCE GOTTEN TO KNOW
27 SOMEWHERE -- BASICALLY, IT WAS IN THE ANNALS OF INTERNAL
28 MEDICINE AND HIS NAME WAS DAVID EDDY. THAT'S E-D-D-Y.
2952
1 Q. LET ME JUST INTERPRET YOU FOR A SECOND.
2 A. YES.
3 Q. THE COURT REPORTER'S ABILITY TO GO REALLY,
4 REALLY FAST --
5 A. YES, SIR.
6 Q. -- AND YOUR ABILITY TO GO REALLY, REALLY
7 FAST -- YOU'RE WINNING THE RACE.
8 A. YES. I APOLOGIZE.
9 Q. GO AHEAD.
10 A. WE'RE -- BASICALLY, WAS AN ARTICLE WHICH SIMPLY
11 SUMMARIZED EVERYONE ELSE'S VIEW THAT WE SHOULDN'T BE
12 SCREENING. AND THEN WHEN I SORT OF ACTUALLY LOOKED AT THE
13 ACTUAL DATA, YOU KNOW, THE PUBLISHED DATA -- I HAD NO ACCESS
14 TO THE ORIGINAL DATA AT THE TIME. AND YOU KNOW, IT SEEMED TO
15 ME THAT, YOU KNOW, THAT WHAT THE DATA SHOWED AND WHAT THE
16 CONVENTIONALLY ACCEPTED CONCLUSIONS ABOUT WHAT DATA HAD
17 SHOWED WERE NOT THE SAME. EVERYONE SAID THAT THE DATA SHOWED
18 THAT SCREENING WAS NOT BENEFICIAL, AND WHEN I LOOKED AT THE
19 SAME DATA, I REACHED AN EXACTLY OPPOSITE CONCLUSION.

20 AND I GOT VERY INVOLVED IN THAT. AND I STARTED
21 WRITING PAPERS ON THAT. ALTHOUGH, I HAD GREAT DIFFICULTY IN
22 GETTING MY PAPERS PUBLISHED, AND IN PART, BECAUSE I DIDN'T
23 HAVE THE VOCABULARY, AND I HAD VERY LIMITED QUANTITATIVE
24 METHODS, BUT DID EVENTUALLY GET SOME OF MY PAPERS PUBLISHED
25 IN ACTUALLY FAIRLY IMPORTANT JOURNALS. BUT NONE -- AND IT'S
26 BEEN MY OBJECTIVE THAT THE STANDARD OF CARE NEEDED TO BE
27 CHANGED.

28 AND AGAIN --

2953

1 Q. LET ME STOP YOU, PLEASE.

2 A. YES.

3 Q. YOU SAY YOU DON'T HAVE THE VOCABULARY.

4 IT SOUNDS LIKE YOU'VE GOT A PRETTY GOOD

5 VOCABULARY TO ME.

6 A. I DO NOW. THAT'S A YEAR -- WHEN YOU'RE 54

7 YEARS OLD AND YOU'RE A FULL-TIME STUDENT, YOU LEARN THE

8 VOCABULARY. I ACTUALLY LEARNED IT QUITE WELL BEFORE, BUT,

9 YOU KNOW, I HAD -- IT WAS PURELY FROM THE PERSPECTIVE OF A

10 PRACTICING ONCOLOGIST SEEING PATIENTS, YOU KNOW, SEEING

11 ENORMOUS NUMBER OF PATIENTS THAT I COULD NEITHER HELP AT ALL

12 OR JUST HELP VERY LITTLE, BECAUSE THEY COME TO ME WHEN THEY

13 HAVE ADVANCED CANCER, AND I COULD EITHER GIVE THEM

14 CHEMOTHERAPY OR NOT.

15 BUT ONE KNEW THAT SUCCESS MEANT I MIGHT IMPROVE

16 THEIR SURVIVAL BY A FEW MONTHS. SUCCESS NEVER MEANT THAT I

17 ACTUALLY WAS GOING TO MAKE THEIR DISEASE GO AWAY AND LEAD A

18 NORMAL LIFE, THAT I WAS GOING TO CURE THEIR CANCER.

19 Q. WHEN YOU'RE TALKING VOCABULARY, YOU'RE NOT

20 TALKING VOCABULARY OF A DOCTOR, EVEN A HARVARD MEDICAL SCHOOL

21 PROFESSOR; YOU'RE TALKING ABOUT WHAT?

22 A. I'M TALKING ABOUT THE VOCABULARY OF

23 EPIDEMIOLOGISTS.

24 Q. GOT IT.

25 A. IT'S VERY JARGON INTENSE.

26 Q. OKAY. I'D LIKE YOU TO PLEASE TELL THE JURY --

27 I JUST WANT TO TALK ABOUT A FEW MORE OF YOUR QUALIFICATIONS

28 HERE --

2954

1 A. YES.

2 Q. -- AND THEN WE'RE GOING TO GO TO SOMETHING

3 ELSE.

4 A. YES.

5 Q. ARE YOU BOARD CERTIFIED?

6 A. YES.

7 Q. IN WHAT?

8 A. I'M BOARD CERTIFIED IN INTERNAL MEDICINE, WHICH

9 YOU HAVE TO BE TO BE SUBSPECIALTY.

10 AND THEN I'M BOARD CERTIFIED IN BOTH HEMATOLOGY

11 AND ONCOLOGY. I'M ACTUALLY BOTH A HEMATOLOGIST AND AN

12 ONCOLOGIST.

13 Q. IS THAT A RELATIVELY COMMON SET OF EVENTS THAT

14 SOMEONE WHO'S AN ONCOLOGIST --

15 A. YES.

16 Q. -- IS ALWAYS A HEMATOLOGIST?

17 A. YES. I MEAN, IN MY CASE, I WILL ALWAYS POINT

18 TO THE DIPLOMA ON MY WALL, WHICH IS DATED 1980 AND SAY THAT I

19 TOOK A TEST IN 1980 THAT I PASSED THAT I'M A BOARD CERTIFIED

20 HEMATOLOGIST, BUT I DON'T PRACTICE HEMATOLOGY.

21 Q. SO YOU'RE GOING TO BE TALKING TO US -- WHEN

22 WE'RE NOT TALKING PUBLIC HEALTH, YOU'RE GOING TO BE TALKING

23 TO US AS AN ONCOLOGIST, CANCER TREATING DOCTOR?

24 A. YES. YES. YES.

25 Q. I'D LIKE YOU TO JUST, IF YOU WOULD -- WELL, LET
26 ME PUT THESE AT YOU SO YOU DON'T HAVE TO GRAB.
27 WERE YOU AN AMERICAN CANCER SOCIETY CLINICAL
28 FELLOW?
2955
1 A. YES.
2 Q. A FELLOW OF THE AMERICAN COLLEGE OF CHEST
3 SURGEONS?
4 A. YES.
5 Q. AND HAVE YOU GOTTEN VARIOUS AWARDS OVER THE
6 YEARS FROM HOSPITALS AND UNIVERSITIES WITH WHICH YOU'VE BEEN
7 AFFILIATED?
8 A. YES.
9 Q. OKAY. HAVE YOU EVER BEEN INVOLVED IN A
10 SITUATION WHERE YOU'VE COME TO COURT AND TESTIFIED WHERE A
11 TOBACCO OR A TOBACCO COMPANY WAS ON TRIAL?
12 A. YES.
13 Q. HOW MANY TIMES --
14 A. I'VE TESTIFIED IN COURT --
15 Q. -- IN COURT?
16 A. -- ACTUALLY, TWO TIMES, BUT IT WAS IN THE SAME
17 CASE.
18 Q. OKAY. SO ONE CASE?
19 A. ONE CASE.
20 Q. I DON'T WANT TO HEAR ANYTHING ABOUT THE
21 SPECIFICS, BUT JUST TELL US WHEN THAT WAS?
22 A. IT WAS RECENTLY. I THINK IT WAS IN NOVEMBER --
23 FIRST TIME WAS NOVEMBER, AND THE SECOND TIME WAS DECEMBER OF
24 2000.
25 Q. PRIOR TO LAST FALL, IS IT CORRECT THAT YOU'D
26 NEVER BEEN INVOLVED IN ANY KIND OF TOBACCO LITIGATION?
27 A. THE FIRM FOR WHICH I TESTIFIED -- I'VE BEEN
28 ACTUALLY INVOLVED WITH THEM AS THEY WERE PLANNING THE CLASS
2956
1 ACTION FOR ABOUT THREE OR FOUR YEARS. BUT IT NEVER -- THE
2 CLASS ACTION WAS ULTIMATELY DISAPPROVED, SO I NEVER WENT TO
3 COURT ON THAT.
4 Q. WHAT YEAR WAS IT THAT YOU FIRST CAME ANY PLACE
5 NEAR TOBACCO LITIGATION FOR THAT FIRM?
6 A. I BELIEVE IT WAS 1997, BUT I REALLY MIGHT NOT
7 BE CORRECT ON THAT.
8 Q. THANK YOU.
9 NOW, DID I ASK YOU TO -- WELL, MY LAW FIRM, I
10 SHOULD SAY --
11 A. YES.
12 Q. -- DID MY LAW FIRM ASK YOU TO CONSULT WITH
13 US --
14 A. YES.
15 Q. -- ME, HERE ON THIS CASE SO YOU COULD BE HERE
16 AND TESTIFY TO THE JURY?
17 A. YES.
18 Q. ROUGHLY WHEN?
19 A. I ACTUALLY SAW THE LETTER. IT WAS IN
20 FEBRUARY -- IT WAS EARLY FEBRUARY OF THIS YEAR.
21 Q. HAVE YOU BEEN PROVIDED WITH MATERIALS IN ORDER
22 TO HELP YOU GET A FEEL FOR THE CASE?
23 A. YES.
24 Q. WHAT?
25 A. YOU SENT ME THE MEDICAL RECORDS ON THE CASE,
26 AND YOU ALSO SENT ME A SUMMARY ON MR. BOEKEN'S SMOKING
27 HISTORY.
28 Q. IS THAT IT?
2957

1 A. YES. IN TERMS OF WHAT YOU'VE PROVIDED ME.
2 Q. ANY OTHER MATERIALS THAT HAVE BEEN INVOLVED IN
3 YOUR PREPARATION TO TESTIFY?
4 ARE YOU THE ONE THAT HAS OBTAINED THOSE
5 MATERIALS ON YOUR OWN?
6 A. YES.
7 Q. DO YOU KNOW WHAT ADENOCARCINOMA IS?
8 A. I DO.
9 Q. I HOPE SO.
10 A. YES.
11 Q. WHAT IS IT?
12 A. ADENOCARCINOMA IS ONE OF THE FOUR MAJOR
13 SUBTYPES OR HISTOLOGIC SUBTYPES. HISTOLOGIC REFERS TO WHAT A
14 PATHOLOGIST SEES UNDER A MICROSCOPE, TYPES OF LUNG CANCER.
15 Q. DID MR. BOEKEN HAVE ADENOCARCINOMA?
16 A. HE DID.
17 Q. DO YOU KNOW WHAT PAPILLARY ADENOCARCINOMA IS?
18 A. I'M NOT A PATHOLOGIST. I'M FAMILIAR WITH THE
19 TERM.
20 Q. WE HAD NOT JUST A PATHOLOGIST, BUT A PULMONARY
21 PATHOLOGIST, A CHEST PATHOLOGIST, WHO WROTE THE BOOK ON THE
22 SUBJECT HERE YESTERDAY.
23 A. YES.
24 Q. AND I TOLD YOU THAT ALREADY?
25 A. YES, YOU DID.
26 Q. IF I SAID TERMS LIKE PAPILLARY OR ACINAR OR
27 BRONCHIOLOALVEOLAR, ARE YOU FAMILIAR WITH THOSE TERMS?
28 A. YES, I AM.
2958

1 Q. ARE THOSE SUBTYPES OF ADENOCARCINOMA?
2 A. THEY ARE.
3 Q. BACKING UP -- AND I'M NOT SURE HOW FAR BACK WE
4 HAVE TO GO. BUT WHETHER IT'S 20 YEARS OR 30 YEARS OR
5 WHATEVER, WAS THERE A TIME WHEN IT WAS THOUGHT THAT
6 ADENOCARCINOMA WAS NOT RELATED TO CIGARETTE SMOKING?
7 A. YES, THERE WAS.
8 Q. WHEN WAS THAT?
9 A. WELL, 1950 WAS THE MAIN YEAR THAT THE
10 EPIDEMIOLOGIC STUDIES SHOWED A CLEAR-CUT ASSOCIATION BETWEEN
11 SMOKING AND LUNG CANCER. BUT LUNG CANCER -- ADENOCARCINOMA
12 OF THE LUNG WAS FAIRLY UNCOMMON AT THAT TIME, AND IN THE TWO
13 MAJOR STUDIES THAT HAVE GOTTEN THE MOST ATTENTION, ONE DONE
14 IN THE UNITED STATES AND ONE DONE IN THE UNITED KINGDOM,
15 ADENOCARCINOMA WAS A SMALL MINORITY.
16 BUT IN BOTH OF THOSE STUDIES, THERE WAS NO
17 EVIDENCE OF A RELATIONSHIP BETWEEN CIGARETTE SMOKING AND
18 ADENOCARCINOMA. AND THROUGH THE 1950'S, OTHER STUDIES SEEMED
19 TO SUPPORT THE SAME CONCLUSION.
20 Q. LET ME STOP YOU JUST FOR A SECOND.
21 A. YES, SIR.
22 Q. THE FIRST WITNESS IN THE TRIAL WAS DR. DOLL.
23 A. YES.
24 Q. DO YOU KNOW OF DR. DOLL?
25 A. I VERY MUCH KNOW OF DR. DOLL.
26 Q. HERE IS A CHART THAT WE USED WITH DR. DOLL, AND
27 THIS IS TWO AND A HALF YEARS AGO, PROBABLY.
28 BUT JUST TO GIVE YOU A RUNNING START HERE. I
2959

1 KNOW YOU'RE LEANING TO SEE IT.
2 HAVE YOU EVER SEEN THIS BEFORE?
3 A. I'M NOT SURE I ACTUALLY SAW IT ENOUGH TO KNOW
4 WHETHER I'VE -- I DIDN'T --
5 I DON'T -- I'VE SEEN -- I'M NOT SURE -- I'VE

6 SEEN THINGS LIKE THAT. I ACTUALLY MIGHT HAVE SEEN THAT.

7 Q. ALL RIGHT.

8 A. I'M NOT SURE.

9 Q. ALL RIGHT. JUST TAKE A LOOK --

10 A. YES.

11 Q. -- PLEASE.

12 ALL RIGHT. LET ME PLUG YOU BACK IN.

13 A. YES.

14 Q. YOU JUST STARTED TO SAY THAT IN THE 1950'S --

15 A. YES.

16 Q. -- THAT'S WHEN IT WAS PUBLISHED THAT TOBACCO
17 CAUSED LUNG CANCER?

18 A. YES.

19 Q. WAS IT A GROUP OF AMERICAN INVESTIGATORS,
20 WYNDER AND GRAHAM AND A GROUP OF --

21 A. RIGHT.

22 Q. -- BRITISH INVESTIGATORS, DOLL AND HILL, THAT
23 CAME UP WITH THIS?

24 A. THAT'S CORRECT.

25 Q. DR. DOLL SPENT SOME TIME TALKING ABOUT THIS
26 ALREADY --

27 A. YES.

28 Q. -- SO I DON'T WANT TO REFLOW THE WHOLE GROUND.
2960

1 BUT AS THE DECADE OF THE 1950'S WENT ON, WOULD
2 YOU SAY THAT THERE WAS MORE AND MORE AND STRONGER AND
3 STRONGER EVIDENCE THAT CAME OUT THAT TOBACCO CAUSED LUNG
4 CANCER?

5 A. ACTUALLY, BY 1950 -- LAST YEAR WHEN I WAS A
6 STUDENT, I ACTUALLY TOOK AN INTERNATIONAL TOBACCO COURSE. I
7 DEBATED WHETHER TO TAKE IT BECAUSE I THOUGHT I KNEW A LOT
8 ALREADY, AND IT WAS ONE OF THE BEST COURSES THAT I TOOK. AND
9 I ACTUALLY READ -- I HAD SORT OF, YOU KNOW, KNEW ABOUT THE
10 STUDIES. BUT I ACTUALLY NEVER REALLY READ THE ORIGINAL
11 STUDIES, BUT I ACTUALLY READ, I BELIEVE, EVERY STUDY THAT WAS
12 PUBLISHED BETWEEN 1950 AND 1955.

13 Q. THEN I'M GOING TO --

14 A. YES.

15 Q. -- IF YOU DON'T MIND, I'M GOING TO PUT THIS
16 DOWN FOR A SECOND.

17 I WAS TRYING TO --

18 A. YES. YES.

19 Q. -- SEPARATE YOUR BEING A DOCTOR --

20 A. OKAY.

21 Q. -- FROM YOUR BEING A PUBLIC HEALTH OFFICIAL --

22 A. YES.

23 Q. -- BUT I FAILED.

24 A. I'M SORRY.

25 Q. SO LET'S TALK ABOUT YOUR BEING A PUBLIC HEALTH
26 OFFICIAL.

27 A. OKAY. I APOLOGIZE.

28 Q. DON'T.

2961

1 A. OKAY.

2 Q. TELL THE JURY -- YOU'VE ALREADY EXPLAINED WHY
3 YOU STOPPED BEING A TREATING --

4 A. YES.

5 Q. -- MEDICAL ONCOLOGIST AND ONCOLOGY PROFESSOR.

6 A. YES.

7 Q. LET'S HEAR WHAT YOU DID AT THE HARVARD SCHOOL
8 OF PUBLIC HEALTH, WHAT KIND OF COURSES YOU TOOK?

9 A. OKAY.

10 Q. AND JUST A GENERAL OVERVIEW OF WHAT YOU

11 LEARNED --
12 A. ALL RIGHT.
13 Q. -- IN A YEAR.
14 A. YES.
15 Q. WE CAN'T SPEND A YEAR TALKING ABOUT IT --
16 A. YES. I MEAN, MY REAL OBJECTIVE WAS TO REALLY
17 TAKE METHODS COURSES, YOU KNOW. I FELT -- YOU KNOW, I WAS 54
18 YEARS OLD WHEN I ENTERED THE SCHOOL. I KNEW THE SUBJECT
19 MATTER VERY WELL. WHAT I WAS REALLY INTERESTED IN LEARNING
20 WAS HOW TO APPLY QUANTITATIVE METHODS, STATISTICAL METHODS TO
21 DATA.
22 SO I TOOK -- PROBABLY THREE QUARTERS OF THE
23 COURSES I TOOK WERE REALLY STATISTICS COURSES OR BASIC
24 EPIDEMIOLOGY COURSES. EPIDEMIOLOGY TENDS TO STUDY THE
25 EFFECTS OF INTERVENTIONS IN POPULATIONS. SO WE DEAL WITH
26 POPULATIONS RATHER THAN INDIVIDUALS.
27 I TOOK A COUPLE OF SPECIFIC COURSES LIKE THE
28 TOBACCO COURSE, WHICH WAS A VERY EXCELLENT COURSE. I
2962
1 ACTUALLY TOOK A FEW OTHER AND VERY SPECIFIC COURSES IN MY
2 FIELD, BUT MOST OF THE COURSES I TOOK WERE REALLY METHODS
3 COURSES. I REALLY WANTED TO LEARN -- REALLY WANTED TO -- I
4 WASN'T GOING TO BECOME A STATISTICIAN. I WASN'T GOING TO
5 SPEND FOUR YEARS BECOMING A PH.D., BUT I REALLY WANTED TO DO
6 MY OWN STATISTICAL ANALYSIS AS IT RELATES TO THOSE AREAS THAT
7 I WAS INTERESTED.
8 Q. SO YOU'RE UP THERE, FROM YOUR PERSPECTIVE --
9 A. YES.
10 Q. -- TALKING ABOUT METHODS --
11 A. YES.
12 Q. -- AND WE DON'T KNOW WHAT YOU'RE SAYING.
13 WHAT'S METHODS?
14 WHAT'S THAT?
15 A. WELL, IT IS -- YOU KNOW, THE WAY WE -- THE WAY
16 WE TRY TO DEVELOP ASSOCIATIONS IS TO LOOK AT LARGE
17 POPULATIONS AND THEN TO DETERMINE THE RELATIONSHIP BETWEEN
18 EXPOSURES AND OUTCOMES. YOU CAN -- YOU KNOW, EVEN THOUGH MY
19 INTENT WAS ACTUALLY NOT TO LEARN ABOUT SMOKING AND LUNG
20 CANCER, AS I TOOK BASIC COURSES IN EPIDEMIOLOGY AND
21 BIostatISTICS, THE MOST COMMON EXAMPLE THAT PROFESSOR AFTER
22 PROFESSOR WOULD GO TO WOULD BE THE CLASSIC EXAMPLE OF THE
23 RELATIONSHIP BETWEEN SMOKING AND LUNG CANCER. THAT IS THE
24 CLASSIC EXAMPLE THAT PEOPLE TALK ABOUT WHERE EPIDEMIOLOGY HAS
25 CLEARLY DEMONSTRATED AN ASSOCIATION BETWEEN AN EXPOSURE,
26 EXPOSURE TO SMOKING, AND OUTCOME, DEVELOPING LUNG CANCER OR
27 DYING OF LUNG CANCER.
28 Q. SO WE HEARD YOU DEFINE EPIDEMIOLOGY, PLUS WE
2963
1 HAD, AS I SAID, DR. DOLL HERE.
2 A. YES.
3 Q. BUT WHAT'S BIostatISTICS?
4 THAT'S A NEW WORD NOW.
5 A. BIostatISTICS -- EPIDEMIOLOGISTS AND
6 BIostatISTICS ARE RELATED. BIostatISTICIANS USUALLY ARE
7 PH.D'S WHO ARE REALLY MATHEMATICIANS WHO APPLY -- YOU KNOW,
8 WHO APPLY NUMBERS TO LEARN WHAT REALITY IS IN THE WORLD.
9 STATISTICS CAN BE USED AND IT CAN BE MISUSED.
10 AND I WANTED TO LEARN FROM HIGHLY TRAINED
11 BIostatISTICIANS HOW TO APPLY METHODS TO DETERMINE THE
12 RELATIONSHIP BETWEEN EXPOSURES AND OUTCOMES. YOU KNOW, IT
13 WAS VERY MUCH IMPORTANT TO MY HOPE TO CHANGE HOW WE PRACTICED
14 SCREENING FOR VARIOUS CANCERS AND ALSO PREVENTION OF LUNG
15 CANCER.

16 Q. THANK YOU.
17 A. YES.
18 Q. SO FOR YOUR YEAR AT THE SCHOOL OF PUBLIC
19 HEALTH --
20 A. YES.
21 Q. -- IS THAT IN CAMBRIDGE OR IN BOSTON?
22 A. THAT WAS ACTUALLY IN BOSTON.
23 Q. AND YOU LEARNED EPIDEMIOLOGY, BIOSTATISTICS?
24 A. YES.
25 Q. ANYTHING ELSE YOU WANT TO TELL US ABOUT IN
26 SHORTHAND?
27 A. NO. I MEAN, IT WAS A YEAR TO REALLY, YOU KNOW,
28 DEVELOP THE CREDENTIALS AND DEVELOP THE EDUCATION TO -- I HAD
2964
1 DEVELOPED -- HAD SOME SUCCESS, BUT I WAS EITHER -- WITH
2 REGARD TO THE SCREENING, MY WORK IS CHALLENGED. VERY MANY
3 CONVENTIONAL -- THERE'S A LOT OF CONVENTIONAL THINKING ABOUT
4 SCREENING FOR CANCER, AND I FELT THAT I NEEDED TO ACTUALLY
5 BOTH HAVE THE UNION CARD, YOU KNOW, BE TRAINED IN THE AREA,
6 AS WELL AS TO BE ABLE TO DO THE ANALYSIS THAT I WAS GOING TO
7 DO ON MY OWN.
8 Q. OKAY.
9 A. YES.
10 Q. SO NOW COMING BACK TO THIS.
11 A. YES.
12 Q. WHAT I HAD SAID TO YOU IS, BY THE END OF THE
13 DECADE OF THE '50'S, WAS IT PRETTY WELL ESTABLISHED THAT
14 TOBACCO WAS THE CAUSE OF LUNG CANCER?
15 AND YOU CAME BACK AT ME WITH --
16 MR. CARLTON: OBJECTION, YOUR HONOR. THIS IS BEYOND
17 THE SCOPE. LACK OF FOUNDATION.
18 Q. BY MR. PIUZE: YOU CAME BACK TO ME --
19 THE COURT: HOLD ON.
20 YOU MEAN BEYOND THE SCOPE OF THE DESIGNATION?
21 MR. CARLTON: YES. YES, SIR, YOUR HONOR.
22 MR. PIUZE: IT'S NOT.
23 THE COURT: I DON'T HAVE THE DESIGNATION IN FRONT OF
24 ME.
25 MR. CARLTON: WELL --
26 THE COURT: MAY I SEE THE DESIGNATION?
27 MR. CARLTON: I DON'T HAVE IT.
28 I DON'T HAVE IT, YOUR HONOR.
2965
1 THE COURT: ALL RIGHT. YOU CAN PROCEED.
2 Q. BY MR. PIUZE: YOU CAME BACK AT ME -- I CUT YOU
3 OFF -- BUT IT WAS -- BASICALLY, YOU WERE ABOUT TO SAY IT WAS
4 WAY EARLIER.
5 A. I THINK ABOUT 1955, WE PRETTY MUCH KNEW WHAT WE
6 KNEW THROUGH -- YOU KNOW, BY 1957, WE PRETTY MUCH KNEW
7 EVERYTHING THAT WE KNEW BY 1960. IT WAS THAT FIVE-YEAR
8 PERIOD OF MANY STUDIES BEING PUBLISHED AND EVERYTHING THAT
9 CAME AFTER THAT HAD REALLY CONFIRMED THAT, BUT I THINK THE
10 ASSOCIATIONS WERE -- THE CAUSAL ASSOCIATIONS WERE WELL
11 ESTABLISHED BY 1955.
12 Q. 1955?
13 A. YES.
14 Q. OKAY. IT HAS BEEN MENTIONED HERE TO THE JURY
15 THAT THERE WAS A CERTAIN ARTICLE WRITTEN IN '60 IN "THE NEW
16 ENGLAND JOURNAL OF MEDICINE" THAT SAID, IN EFFECT, THIS IS SO
17 OBVIOUS, LET'S STOP KIDDING OURSELVES.
18 ARE YOU FAMILIAR WITH THAT?
19 A. I'M ACTUALLY NOT SURE I AM SPECIFIC -- I CAN'T
20 THINK OF THAT OFFHAND IN TERMS OF THE 1960 ARTICLE.

21 Q. ALL RIGHT. FINE.
22 A. YES.
23 Q. NOW, AS PART OF YOUR WORK LAST YEAR, DID YOU
24 SAY THAT YOU READ MOST OF THE ARTICLES OR ALL OF THE ARTICLES
25 HAVING TO DO WITH LUNG CANCER AND SMOKING?
26 A. VIRTUALLY ALL OF THEM. EVERY ONE I COULD FIND.
27 Q. UP UNTIL WHEN?
28 IN OTHER WORDS, WERE YOU CONCENTRATING ON THE
2966
1 EARLY DAYS?
2 A. I ACTUALLY SPECIFICALLY WANTED TO SEE WHAT WE
3 KNEW ABOUT 1955. SO I ACTUALLY -- I WAS SPECIFICALLY
4 FOCUSING ON THAT PERIOD. BUT I HAVE MANY ARTICLES FROM
5 BEFORE THE 1950'S AND, YOU KNOW, I'VE GOT A DRAW OF THESE
6 ARTICLES AT WORK. SO I'VE READ A GREAT DEAL OF THEM.
7 Q. THANK YOU. LET ME GO AWAY FROM THE SUBJECT
8 AREA JUST WITH THIS SORT OF SUMMARY QUESTION.
9 A. YES.
10 Q. IN YOUR VIEW, BY 1955, WAS IT CLEAR TO ANY
11 REASONABLE MEDICAL PEOPLE -- NOT MEDICAL PEOPLE -- PEOPLE
12 THAT DEALT WITH LUNG CANCER --
13 A. YES. YES.
14 Q. -- THAT TOBACCO CAUSED IT --
15 A. YES.
16 Q. -- WITHOUT ANY DOUBT?
17 OKAY. NOW, HERE, WE'RE BACK TO ADENOCARCINOMA.
18 IN 1950, '51, '2, '3, '4, '5, DID MOST DOCTORS
19 THINK THAT SMOKING CAUSED ADENOCARCINOMA?
20 A. I'M NOT SURE TO WHAT EXTENT PHYSICIANS ASKED
21 THAT QUESTION. BUT TO THE EXTENT THAT THEY DID, THE DATA
22 DIDN'T SUPPORT THAT.
23 IN FACT, IN THE VERY FIRST PAPER BY WYNDER AND
24 GRAHAM, 1950, IT SHOWED NO ASSOCIATION.
25 DR. DOLL'S FIRST PAPER IN 1950 WAS SIMPLY A
26 PRELIMINARY REPORT WHERE THEY DIDN'T ACTUALLY BREAK IT DOWN.
27 BUT THEY PUBLISHED AN EXPANDED REPORT IN 1952
28 WHERE THEY DID, AND BASED ON THEIR EVIDENCE IN 1952, THERE
2967
1 WAS ABSOLUTELY NO ASSOCIATION BETWEEN ADENOCARCINOMA AND
2 SMOKING BASED ON THE UNITED KINGDOM DATA.
3 Q. SO IN THE EARLY '50'S --
4 A. YES.
5 Q. -- ALTHOUGH IT HAD BEEN ESTABLISHED THAT
6 SMOKING CAUSED LUNG CANCER --
7 A. YES.
8 Q. -- IT HAD BEEN NOT BEEN ESTABLISHED THAT
9 SMOKING CAUSED THIS PARTICULAR TYPE --
10 A. RIGHT.
11 Q. -- OF LUNG CANCER?
12 A. RIGHT.
13 Q. HAS THAT BEEN ESTABLISHED NOW?
14 A. OH, YES. YES.
15 Q. LOOKING AT IT FROM OUR MORE ADVANCED
16 PERSPECTIVE, 50 YEARS LATER, WHAT PERCENTAGE OF
17 ADENOCARCINOMA ARE THOUGHT TO BE CAUSED BY SMOKING TOBACCO?
18 A. MAY I REFER TO -- DO YOU WANT ME TO JUST GIVE A
19 FIGURE, OR DO YOU WANT ME TO TELL YOU WHERE I'M GETTING THE
20 FIGURE FROM?
21 Q. WELL, BOTH.
22 A. OKAY.
23 Q. LET ME STOP YOU FOR A SECOND.
24 A. YES.
25 Q. DO YOU HAVE A SERIES OF GRAPHS AND CHARTS UP

26 THERE?
27 A. YES, I DO.
28 Q. AND HAVE YOU SUPPLIED ME WITH A COPY OF THESE
2968
1 THINGS?
2 A. YES. YES.
3 Q. WHICH TABLE ARE YOU LOOKING AT, PLEASE?
4 A. I'M ACTUALLY NOW LOOKING AT TABLE 12.
5 IT WOULD BE -- YOU'D BE WANTING TO LOOK AT
6 TABLES 11 AND 12 TOGETHER BECAUSE THEY HAVE THE SAME FORMAT.
7 OH, GREAT.
8 Q. JUST HANG ON ONE SECOND, PLEASE.
9 A. YES.
10 Q. YOU THINK THAT'S GOING TO BE EASY?
11 ACTUALLY, IT'S NOT.
12 LET'S START WITH 11.
13 A. OKAY.
14 Q. I'D LIKE TO ASK YOU A COUPLE PRELIMINARY
15 QUESTIONS.
16 A. YES.
17 Q. IT SAYS UP AT THE TOP, "COHORT STUDY."
18 JUST REMIND US. WE'VE HEARD IT, BUT WHAT -- IT
19 WAS TWO AND A HALF WEEKS AGO -- WHAT'S A COHORT STUDY?
20 A. A COHORT STUDY IS A PROSPECTIVE STUDY WHERE ONE
21 TAKES A POPULATION OF PEOPLE, AND YOU DEFINE THEIR EXPOSURE
22 STATUS. IN THIS CASE, DID THEY SMOKE OR DID THEY NOT SMOKE.
23 AND THEN YOU FOLLOW THEM OVER TIME TO SEE IF CERTAIN EVENTS
24 OCCUR. IN THIS CASE, IT WAS THE DEVELOPMENT OF LUNG CANCER
25 OF THE VARIOUS SUBTYPES.
26 Q. SO THIS SAYS, "COHORT STUDY, AMERICAN CANCER
27 SOCIETY" -- I'M SORRY.
28 A. YES.
2969
1 Q. "AMERICAN SOCIETY, CANCER PREVENTION STUDY"?
2 A. THAT'S TABLE 11.
3 OKAY. THIS IS DATA THAT IS TAKEN -- THE
4 AMERICAN CANCER SOCIETY HAS ACTUALLY SPONSORED TWO VERY LARGE
5 COHORT STUDIES. YOU KNOW, WE CALL IT THE CANCER PREVENTION I
6 AND THE CANCER PREVENTION II STUDIES. AND I'LL SHOW DATA
7 FROM BOTH.
8 THE CANCER PREVENTION -- BOTH STUDIES ACTUALLY
9 RECRUITED MORE THAN ONE MILLION MEN AND WOMEN IN THE
10 UNITED STATES. YOU KNOW, THEY HAD, YOU KNOW, A LARGE NUMBER
11 OF VOLUNTEERS WHO WENT OUT AND COLLECTED EXPOSURE HISTORY.
12 IT WAS NOT STRICTLY RELATED TO SMOKING AND LUNG CANCER. THEY
13 MEASURED OTHER THINGS AS WELL. BUT THEY DID MEASURE SMOKING
14 STATUS.
15 AND THEN THEY FOLLOWED THEM FOR A CERTAIN
16 PERIOD OF TIME TO SEE IF THEY DEVELOPED LUNG CANCER. OR
17 OTHER EVENTS. BUT, YOU KNOW, HERE, THIS DATA IS ACTUALLY
18 LUNG CANCER THAT WE'RE LOOKING AT TODAY.
19 Q. ALL RIGHT. SO HERE'S A BUNCH OF TABLES WHICH
20 MIGHT BE EVERYDAY READING FOR YOU --
21 A. YES.
22 Q. -- THEY'RE CERTAINLY NOT FOR US.
23 A. RIGHT.
24 Q. WHAT DOES TABLE 11 MEAN?
25 A. TABLE -- WELL, YOU KNOW, THIS IS THE CANCER
26 PREVENTION STUDY I, WHICH BEGAN IN 1959. AND ESSENTIALLY,
27 THEY FOLLOWED PEOPLE FOR A CERTAIN AMOUNT OF TIME. THEY
28 ACTUALLY REPORTED IT IN TERMS OF PERSON TIME. YOU KNOW, SO
2970
1 IF YOU -- JUST ON THE -- IF YOU LOOK ON THE LEFT, THERE'S

2 MALES AND FEMALES, AND YOU CAN SEE "EVER SMOKERS" AND "NEVER
3 SMOKERS" FOR BOTH.

4 Q. WHAT'S -- WE KNOW WHAT A NEVER SMOKER IS, I
5 GUESS. BUT WHAT'S AN EVER SMOKER?

6 A. AN EVER SMOKER IS -- FOR THE PURPOSES OF THIS
7 TABLE, I SIMPLY COMBINED CURRENT AND FORMER SMOKERS. SO IF
8 YOU WERE -- IF YOU WERE SOMEBODY WHO STOPPED -- YOU KNOW, I
9 MEAN, THE DATA IS AVAILABLE SEPARATELY. BUT JUST FOR
10 PURPOSES OF THIS TABLE, I COMBINED THEM TOGETHER.

11 Q. OKAY.

12 A. SO, YOU KNOW, THERE ARE 274,635. YOU SEE
13 PERSON TIME, THE LEFT COLUMN. THE ACTUAL NUMBER IS NOT
14 IMPORTANT, BUT THAT MEANS THAT THEY FOLLOWED THIS NUMBER
15 OF -- YOU KNOW, A PERSON TIME MEANS IF THEY FOLLOW AN
16 INDIVIDUAL FOR ONE YEAR, THAT GIVES YOU ONE YEAR OF PERSON
17 TIME. IF YOU FOLLOW ONE INDIVIDUAL FOR TEN YEARS, THAT GIVES
18 YOU TEN YEARS OF PERSON TIME. SO THEY REPORTED IT IN TERMS
19 OF PERSON TIME. THEY COULD HAVE DONE IT EITHER WAY.

20 Q. OKAY.

21 A. BUT IN THIS PARTICULAR PUBLICATION, THEY
22 REPORTED IT IN TERMS OF PERSON TIME.

23 Q. THANK YOU.

24 A. NOW, THIS IS -- AND THERE'S DATA FOR MALES AND
25 FEMALES, BUT SINCE WE'RE TALKING ABOUT A MALE, I THINK FOR
26 THIS PARTICULAR CASE, WE CAN JUST SIMPLY LOOK AT THE DATA
27 UNDER MALES.

28 Q. SO WE'RE LOOKING ON THIS SIDE OF THE CHART
2971

1 RIGHT HERE?

2 A. ON THIS SIDE OF THE CHART, RIGHT.

3 Q. OKAY.

4 A. AND IF WE SKIP THE ADENOCARCINOMA.

5 I THEN SUBDIVIDED INTO ADENOCARCINOMA, SQUAMOUS
6 CELL CARCINOMAS AND SMALL CELL CARCINOMAS. THEY DIDN'T
7 ACTUALLY -- THERE'S ANOTHER TYPE, LARGE CELL, BUT THEY REALLY
8 DIDN'T TALK ABOUT LARGE CELL, SO WE DON'T ACTUALLY HAVE THAT
9 DATA. IT EXISTS IN THE PEOPLE, BUT IT JUST WASN'T COLLECTED
10 IN THIS WAY.

11 Q. THANK YOU.

12 A. SO WE CAN ONLY TALK ABOUT ADENOCARCINOMA.

13 SO IF ONE LOOKS AT MEN, IF YOU LOOK AT SQUAMOUS
14 CELL CARCINOMA, JUST TO GIVE A CONTRAST --

15 Q. RIGHT THERE.

16 A. -- YOU SEE THAT THERE ARE 35 CASES OF SQUAMOUS
17 CELL CARCINOMA AMONG THE 274,000 PERSON YEARS AND AMONG
18 PEOPLE WHO WOULD SMOKE. THAT INCLUDED CURRENT OR FORMER
19 SMOKERS VERSUS ACTUALLY ONLY ONE CASE OF SQUAMOUS CELL
20 CARCINOMA IN SOMEBODY WHO IS A NEVER SMOKER.
21 SO WHAT I DID IS, I THEN USED, YOU KNOW, MODERN
22 UPDATE METHODS TO PUT IT TOGETHER IN A WAY THAT'S EASY. SO I
23 THINK WHAT WE SEE -- THERE'S AN INCIDENCE RATE RATIO, WHICH
24 IS 22.9, SO THAT ESSENTIALLY MEANS THAT IF YOU'RE A SMOKER,
25 YOU ARE 23 TIMES -- 22.9 -- YOU'RE 23 TIMES MORE LIKELY TO
26 HAVE DEVELOPED SQUAMOUS CELL CARCINOMA THAN IF YOU WERE A
27 LIFELONG NONSMOKER.

28 AND THERE'S SOMETHING CALLED A CONFIDENCE
2972

1 INTERVAL NEXT TO IT, WHICH IS PROBABLY SOMETHING WE DON'T
2 NEED TO GET INTO, BUT IT JUST --

3 Q. LET'S JUST STOP FOR A SECOND, PLEASE.

4 A. YES.

5 Q. 23 TIMES MORE LIKELY?

6 A. YES.

7 Q. THIS IS THE STUFF THAT'S REALLY COMPLICATED.
8 A. IT ACTUALLY -- I CAN ACTUALLY PROBABLY -- WHAT,
9 YOU KNOW, STATISTICS IS, YOU KNOW, WHEN YOU CHOOSE
10 POPULATION, YOU KNOW, ALL POPULATION CLASSES ARE NOT THE
11 SAME. THERE'S GOING TO BE A CERTAIN NATURAL VARIABILITY.
12 SO WHEN WE ACTUALLY -- WHAT WE WERE INTERESTED
13 IN IS THE POINT ESTIMATE HERE. IT'S 23. BUT, YOU KNOW, WE
14 CAN BE 95 PERCENT SURE, YOU KNOW, RIGHT NEXT TO IT, IT SAYS,
15 3.9 TO 932.4. WHAT THAT BASICALLY MEANS, IS THAT WE CAN BE
16 95 PERCENT SURE THAT THE REAL -- IT MAY NOT BE EXACTLY 23 --
17 BUT IT'S SOMEWHERE BETWEEN 4 AND 932.
18 BUT THE CRITICAL ASPECT IS THAT IT DOESN'T
19 CROSS 1. IF THE RELATIVE RISK IS 1, THAT MEANS THAT THERE IS
20 NO ASSOCIATION. SO IF THE CONFIDENCE INTERVAL CROSSES 1,
21 THAT MEANS THAT IT MAY NOT BE TRUE THAT IT MAY NOT REALLY
22 CAUSE LUNG CANCER OR THAT THE EXPOSURE MAY NOT OUTCOME EVENT
23 OF INTEREST.
24 Q. HAVE YOU EVER SEEN, SOMETIMES WITH A PUBLIC
25 OPINION POLL --
26 A. YES. YES. YES.
27 Q. -- WHETHER IT'S FOR POLITICS --
28 A. YES.

2973

1 Q. -- OR SOMEONE RUNNING FOR SOMETHING --
2 A. YES.
3 Q. WHEN THEY GIVE THESE POLLS, AND THEN THEY SAY,
4 AND THESE STATISTICS ARE, LIKE, PLUS OR MINUS 2 PERCENT?
5 A. YES. YES.
6 Q. THIS CONFIDENCE LEVEL IS SOMEWHAT SIMILAR TO A
7 PLUS OR MINUS 2 PERCENT?
8 A. IT'S NOT HOW WE REPORT IT. I'M SURE A
9 STATISTICIAN CAN ACTUALLY -- YOU KNOW, WE WANT TO BE
10 95 PERCENT SURE. NOBODY'S EVER 100 PERCENT SURE. SO BY
11 CONVENTION, WE WANT TO BE 95 PERCENT SURE THAT WE ARE
12 CORRECT.
13 Q. SO THESE --
14 A. YES.
15 Q. -- THESE NUMBERS THAT WE'RE GOING TO LEAVE --
16 A. YES. YES.
17 Q. -- AND NOT COME BACK TO NOW, BASICALLY SAY --
18 A. YES.
19 Q. -- THAT YOU'RE 23 TIMES MORE LIKELY --
20 A. YES. YES. YES.
21 Q. -- TO GET CANCER --
22 A. YES.
23 Q. -- IF YOU'RE A SMOKER?
24 A. YES.
25 Q. AND 95 PERCENT CONFIDENCE LEVEL?
26 A. ACTUALLY, THE TWO NUMBERS THAT ARE IMPORTANT
27 ARE THE 22.9, AND THEN WHERE IT SAYS, ATTRIBUTABLE FRACTION,
28 THAT'S ACTUALLY WHERE YOU ASKED ME THE QUESTION. YOU ASKED
2974

1 ME, WHAT PROPORTION OF THE INDICATION IS RELATED TO SMOKING.
2 Q. HERE?
3 A. YES. THAT BASICALLY MEANS -- AND I CAN EXPLAIN
4 PRECISELY HOW WE GET IT, OR YOU CAN JUST SORT OF -- THERE ARE
5 WELL-ESTABLISHED TECHNIQUES TO DO THIS.
6 BUT ESSENTIALLY, THAT MEANS THAT 96 PERCENT,
7 YOU KNOW. SO THE ATTRIBUTABLE FRACTION IS .96. SO 96
8 PERCENT OF LUNG CANCERS ARE DUE TO SMOKING. OR
9 ALTERNATIVELY, IF PEOPLE HAD NOT SMOKED, WE WOULD HAVE
10 AVOIDED 96 PERCENT OF THE LUNG CANCER OF -- I'M SORRY -- OF
11 THE SQUAMOUS CELL LUNG CANCERS. THAT'S WHAT WE'RE TALKING

12 ABOUT HERE.
13 Q. I'M MAKING A COMMAND DECISION HERE.
14 A. YES.
15 Q. I'M NOT GOING TO ASK YOU --
16 A. YES.
17 Q. -- ABOUT ALL THE MATHEMATICS.
18 A. YES. WE DON'T NEED TO DISCUSS THAT.
19 Q. FINE.
20 A. I THINK, REALLY, THERE ARE TWO -- THE TWO
21 NUMBERS THAT ARE IMPORTANT ARE THE ESTIMATE, YOU KNOW, THE
22 INCIDENCE RATIO HERE, THE 23, AND THE ATTRIBUTABLE FRACTION.
23 SO ESSENTIALLY, THE DATA IS 96 PERCENT OF LUNG
24 CANCERS -- THE RISK IS 23 TIMES GREATER FOR SQUAMOUS CELL
25 CANCERS IF THEY'RE A SMOKER THAN NONSMOKER, AND 96 PERCENT OF
26 THE LUNG CANCERS WERE RELATED TO SMOKING. OR 96 PERCENT OF
27 SQUAMOUS LUNG CANCERS WAS RELATED TO SMOKING. SO IT'S
28 ACTUALLY FAIRLY SIMPLE.
2975
1 Q. THERE'S GOING TO BE A TEST ON THIS THING.
2 A. YES. RIGHT.
3 Q. 23 TIMES MORE LIKELY TO GET SQUAMOUS CELL
4 CARCINOMA --
5 A. YES. YES.
6 Q. -- IF YOU'RE A SMOKER?
7 A. YES.
8 Q. 96 PERCENT OF SQUAMOUS CELL CANCERS?
9 A. WERE RELATED TO SMOKING, YES.
10 Q. ALL RIGHT.
11 A. BUT THIS IS THE -- THIS IS BASED ON THAT STUDY
12 STARTING IN 1959.
13 Q. THE THING IS, DR. STRAUSS, THAT WE'RE TALKING
14 ABOUT --
15 A. RIGHT.
16 Q. -- ADENOCARCINOMA --
17 A. RIGHT.
18 Q. -- SO WHY ARE WE SHOWING SQUAMOUS CELL
19 CARCINOMA?
20 A. JUST TO SORT OF MAKE A CONTRAST. YOU KNOW,
21 THIS IS STILL -- THIS IS ACTUALLY A LITTLE LATER THAN 1950'S.
22 AND IN FACT, AMONG MEN, THERE ACTUALLY WAS AN ASSOCIATION,
23 YOU KNOW.
24 IF YOU LOOK AT THE ADENOCARCINOMA DATA, IT'S
25 23, AND YOU KNOW, 23 CASES AMONG SMOKERS, 5 CASES AMONG
26 NONSMOKERS, YOU KNOW. THE INCIDENCE RATIO, IT WASN'T 23, BUT
27 IT WAS STILL THREE TIMES GREATER. AND 67 PERCENT OF THE
28 ADENOCARCINOMAS AT THAT TIME WERE FELT TO BE RELATED TO
2976
1 SMOKING.
2 Q. SO LET ME STOP YOU.
3 A. YES.
4 Q. IN THIS PARTICULAR STUDY, WE'RE TALKING LUNG
5 CANCER?
6 A. WE'RE TALKING ABOUT LUNG CANCER.
7 Q. ONLY LUNG CANCER?
8 A. WE'RE TALKING ABOUT ONLY LUNG CANCER.
9 Q. THIS PARTICULAR TYPE OF LUNG CANCER, SQUAMOUS
10 CELL, 96 OUT OF 100 ARE RELATED TO SMOKING?
11 A. CORRECT.
12 Q. BUT IN ADENOCARCINOMA, WHICH WE'RE DEALING WITH
13 IN THIS CASE, ONLY TWO THIRDS ARE RELATED TO SMOKING?
14 A. IN 19 -- IN THAT DATA BEGINNING IN 1959, YOU
15 KNOW.
16 Q. RIGHT.

17 A. THIS IS VERY OLD DATA.
18 Q. OKAY. SO THAT'S TABLE 11?
19 A. YES.
20 MR. PIUZE: AND YOUR HONOR, I'D JUST LIKE TO PUT A
21 NUMBER ON THAT. 8002.10.
22 EXCUSE ME. I APOLOGIZE. MR. CARLTON, THANK
23 YOU.
24 .100
25
26 (I.D. 8002.100 - STRAUSS TABLE 11)
27
28 Q. BY MR. PIUZE: NOW, EARLIER, DID YOU ASK ME TO
2977
1 PUT UP TABLE 12?
2 A. YES.
3 Q. IS IT TIME?
4 A. YES, I THINK SO.
5 Q. SO THIS WILL BE 8002.101.
6 A. YES.
7
8 (I.D. 8002.101 - STRAUSS TABLE 12)
9
10 THE WITNESS: THE FORMAT OF THIS TABLE IS IDENTICAL.
11 THE DIFFERENCE IS THAT THIS IS ACTUALLY LOOKING AT THE CANCER
12 PREVENTION II STUDY, WHICH ACTUALLY COLLECTED MORE THAN A
13 MILLION MEN AND WOMEN BEGINNING IN 1982. SO STARTING ALMOST
14 A QUARTER OF A CENTURY AFTER THE ACS-I.
15 IF, FOR EXAMPLE, ONE LOOKS AT THE -- AGAIN,
16 LET'S LOOK AT THE MEN. IF YOU LOOK AT THE SQUAMOUS CELL
17 CANCERS, IT'S ABOUT THE SAME. IT'S ABOUT 27 TIMES GREATER.
18 AND 96 PERCENT OF THE CANCERS WERE RELATED TO SMOKING.
19 Q. SO THIS 96 HAS STAYED EXACTLY THE SAME?
20 A. WAS IT -- YEAH, IT IS. YES. STAYED EXACTLY
21 THE SAME.
22 Q. EVEN THOUGH THIS CHANGED FROM 23 TO 27, IT'S
23 STILL 96 PERCENT?
24 A. YES.
25 Q. OKAY. THANK YOU.
26 A. BUT THERE'S A BIG DIFFERENCE. IF YOU LOOK AT
27 ADENOCARCINOMA AND SMALL CELL, IT'S ALSO VERY STRONGLY
28 ASSOCIATED.
2978
1 Q. 98 PERCENT?
2 A. 98 PERCENT, YES.
3 Q. ALL RIGHT.
4 A. 50 TO 1.
5 BUT NOW, THE ADENOCARCINOMA DATA HAS BECOME
6 MUCH, MUCH MORE SOLID. NOW, THE INCIDENCE RATIO -- THE POINT
7 ESTIMATE IS YOU'RE 16.5 TIMES -- YOU'RE 16 MORE TIMES LIKELY
8 IF YOU'RE A MAN, AND YOU HAVE EVER SMOKED, YOU'RE 16 TIMES
9 MORE LIKELY TO DEVELOP ADENOCARCINOMA OF THE LUNG THAN IF YOU
10 ARE A LIFELONG NONSMOKER. AND IT'S NOT 96 PERCENT, BUT 94
11 PERCENT OF THE ADENOCARCINOMAS ARE ATTRIBUTABLE TO CIGARETTE
12 SMOKING.
13 Q. SO LET'S STOP THERE. YOU MAKE TWO POINTS.
14 A. YES.
15 Q. NUMBER ONE, IN YOUR EVER SMOKER CATEGORY, WHAT
16 IF I GAVE YOU A HYPOTHETICAL PERSON AND THIS HYPOTHETICAL
17 PERSON SMOKED ONE CIGARETTE A DAY FOR FIVE YEARS AND NEVER
18 SMOKED AGAIN.
19 WOULD HE GO INTO THAT CATEGORY?
20 A. THE DEFINITION OF AN EVER SMOKER BY THE CDC IS
21 THAT -- AND I THINK IT'S ACTUALLY TOO LOOSE A DEFINITION,

22 BECAUSE I'VE USED THIS DIFFERENT DEFINITION -- BUT IF YOU
23 SMOKED 100 -- AN EVER SMOKER IS SOMEBODY WHO SMOKED -- THIS
24 IS THEIR OFFICIAL DEFINITION.
25 CDC IS THE COMMUNICABLE DISEASE CENTER --
26 CENTER FOR DISEASE PREVENTION IN ATLANTA. YOU WOULD HAVE TO
27 HAVE SMOKED 100 CIGARETTES IN YOUR LIFETIME TO BE AN EVER
28 SMOKER. SO IF YOU SMOKE -- THEY SAY, IF YOU SMOKE FIVE PACKS
2979

1 OF CIGARETTES, THEN YOU QUALIFY AS AN EVER SMOKER. I THINK
2 THAT'S ACTUALLY TOO EXTREME A DEFINITION, I THINK.

3 Q. I DIDN'T GO TO HARVARD --

4 A. YES.

5 Q. -- MEDICAL SCHOOL --

6 A. YES.

7 Q. -- BUT CDC --

8 A. I'M SORRY. I ACTUALLY -- I SAID CENTER FOR
9 DISEASE CONTROL, BUT -- THEY ACTUALLY KEPT THE SAME INITIALS,
10 BUT THEY CHANGED THEIR NAME. IT'S NOW THE -- ACTUALLY, USED
11 TO BE CALLED THE COMMUNICABLE DISEASE CENTER, BECAUSE THEY
12 WERE INITIALLY INVOLVED IN INFECTIOUS DISEASES. NOW, THEY'RE
13 THE CENTER FOR DISEASE CONTROL AND PREVENTION --

14 Q. GOT IT.

15 A. -- IN ATLANTA. IT IS A GOVERNMENT-SPONSORED
16 ORGANIZATION THAT KEEPS CANCER STATISTICS.

17 Q. HERE'S THE POINT I WAS TRYING TO MAKE.

18 A. YES. YES. YES.

19 Q. FIVE PACKS OF CIGARETTES IN ONE PERSON'S
20 LIFETIME ISN'T VERY MANY CIGARETTES.

21 A. THAT'S TRUE.

22 Q. IF SOMEHOW I WAS IN CHARGE OF THE STUDY --

23 A. YES.

24 Q. -- AND I GOT TO SET THE RULES, AND I SAID,
25 FORGET SOMEONE WHO SMOKED FIVE PACKS IN THEIR WHOLE LIFE --

26 A. YES.

27 Q. -- LET'S ONLY TALK ABOUT PEOPLE WHO SMOKE AT
28 LEAST ONE PACK A WEEK.

2980

1 A. YES.

2 Q. STILL PRETTY LIGHT SMOKER?

3 A. YES.

4 Q. IF I GOT TO SET THE RULES LIKE THAT, WOULD THE
5 NUMBERS FROM ADENOCARCINOMA GO UP?

6 A. THOSE -- LUNG CANCER -- I MEAN, YOU KNOW -- YOU
7 KNOW, SMOKING -- NO. I MEAN, SMOKE -- LUNG CANCER IS NOT A
8 DISEASE OF SOMEBODY WHO SMOKED FIVE PACKS IN THEIR LIFE OR
9 EVEN HAVE SMOKED TWO PACKS A DAY FOR TWO YEARS AND THEN QUIT.
10 LUNG CANCER IS A DISEASE OF PEOPLE WHO SMOKE
11 FOR DECADES. YOU KNOW, WE HAVE A LOT OF MY OWN DATA WITH
12 WHICH WE COULD TALK ABOUT FROM THAT. FROM THE BRIGHAM
13 WOMEN'S DATA AND DANA FARBER. BUT MOST PATIENTS WITH LUNG
14 CANCER HAVE SMOKED HEAVILY FOR DECADES.

15 Q. MY POINT IS --

16 A. YES.

17 Q. -- IF WE ONLY TOOK HEAVY SMOKERS IN THAT
18 SURVEY, THAT 94 PERCENT WOULD GO UP, DOWN OR STAY THE SAME?

19 A. I'M SORRY. I DIDN'T UNDERSTAND YOUR QUESTION.

20 IF YOU ONLY TOOK HEAVY SMOKERS, IT WOULD GO UP.

21 IF YOU ACTUALLY -- AND IF YOU JUST LOOKED AT CURRENT VERSUS
22 NEVER, IT WOULD GO UP.

23 YOU KNOW, I JUST -- YES.

24 Q. OKAY.

25 A. THIS IS AN AVERAGE FIGURE.

26 Q. BY USING THE FORMAT -- BECAUSE I DON'T GET TO

27 SET THE RULES --

28 A. YES.

2981

1 Q. -- BY USING THE FORMAT SET DOWN BY THE CENTER

2 FOR DISEASE CONTROL --

3 A. YES.

4 Q. -- WHICH INCLUDES PEOPLE THAT ONLY SMOKE FIVE

5 PACKS OF CIGARETTES IN THEIR ENTIRE LIFE --

6 A. YES.

7 Q. -- IT'S STILL A 94 PERCENT RELATION TO TOBACCO,

8 IS THAT TRUE?

9 A. YES.

10 Q. NOW, WHY -- THANK YOU.

11 A. YES.

12 Q. WHY, FROM TABLE 11 THAT SHOWED A .67,

13 TWO-THIRDS RELATIONSHIP TO TOBACCO, DOES IT JUMP UP TO .94 IN

14 THE NEXT STUDY?

15 DO YOU HAVE AN OPINION?

16 A. I DO.

17 Q. WHAT?

18 A. IT RELATES VERY MUCH TO THE MYTHOLOGY OF THE

19 SAFE CIGARETTE OR HOW THE TOBACCO INDUSTRY HAD --

20 MR. CARLTON: OBJECTION, YOUR HONOR. FOUNDATION.

21 THE COURT: PLEASE. BEFORE HE STATES HIS OPINION,

22 LET'S TAKE A LOOK AT FOUNDATION ON THIS.

23 MR. PIUZE: FINE.

24 THE COURT: THANK YOU.

25 Q. BY MR. PIUZE: DR. STRAUSS, BEFORE YOU TELL

26 YOUR OPINION, WE WANT TO UNDERSTAND, A, WHY YOU'RE QUALIFIED

27 TO GIVE IT, AND I THINK WE'VE DONE THAT; AND B, WHAT YOU'RE

28 BASING YOUR OPINION ON.

2982

1 SO BEFORE YOU GIVE YOUR OPINION HERE AS TO WHY

2 ADENOCARCINOMA JUMPED LIKE THAT FROM A TWO-THIRDS

3 RELATIONSHIP TO SMOKING TO A 94 PERCENT RELATIONSHIP TO

4 SMOKING, TELL US WHAT YOU BASE YOUR OPINION ON BEFORE YOU

5 GIVE US YOUR OPINION?

6 A. WELL, I MEAN, I'M EXTREMELY WELL READ IN THIS

7 AREA. I'M PERSONALLY CONNECTED WITH MANY OF THE PEOPLE WHO

8 HAVE CONTRIBUTED TO THE FIELD. I'M NOT A TOBACCO CHEMIST.

9 SO THIS IS NOT MY WORK. BUT I'M A THORACIC ONCOLOGIST AND A

10 PUBLIC HEALTH PHYSICIAN. SO I KNOW WHAT THE DATA SAYS, AND

11 I'VE TALKED TO THOSE WHO HAVE BEEN GENERATING THESE IDEAS AND

12 HAVE EXTENSIVE KNOWLEDGE ABOUT IT.

13 Q. WHEN YOU SAY DATA --

14 MR. CARLTON: YOUR HONOR, I DON'T BELIEVE THERE'S A

15 FOUNDATION TO TALK ABOUT LOW-TAR EPIDEMIOLOGY OR LOW TAR

16 HERE.

17 THE COURT: FAIR ENOUGH.

18 MR. PIUZE: I WILL -- I'LL GO ON.

19 Q. WHEN YOU SAY DATA, TELL US --

20 A. YES.

21 Q. -- MEANING THE COURT, THE JURY --

22 A. YES.

23 Q. -- I'M IN LAST PLACE --

24 A. YES.

25 Q. -- AND ME, WHAT DATA YOU HAVE IN MIND?

26 A. WELL, YOU KNOW, THE DATA THAT ACTUALLY IS SHOWN

27 IN TABLES -- THE TWO TABLES WE JUST LOOKED AT, ACTUALLY, CAME

28 FROM A PAPER THAT WAS PUBLISHED IN THE JOURNAL OF THE

2983

1 NATIONAL CANCER INSTITUTE -- THE ANALYSIS IS MY OWN -- BUT

2 THE DATA CAME FROM THOSE PAPERS, WHICH BASICALLY TALKED ABOUT

3 THE SHIFTING INCIDENCE OF ADENOCARCINOMA AND ALSO TALKING
4 ABOUT THE INCREASING RELATIONSHIP BETWEEN ADENOCARCINOMA AND
5 CIGARETTE SMOKING.
6 AND THEY BASICALLY SPENT A GREAT DEAL OF TIME
7 IN THAT MANUSCRIPT DISCUSSING WHY THERE WAS NOT ONLY -- ONE
8 THING WE ACTUALLY HAVE NOT TALKED ABOUT, BUT WHICH IS ALSO
9 RELEVANT IS NOT ONLY IS THE RELATIONSHIP BETWEEN
10 ADENOCARCINOMA AND SMOKING VERY SOLID --
11 MR. CARLTON: OBJECTION TO THE STATEMENT OF OPINION
12 HERE.
13 THE COURT: NO. HE'S LAYING A FOUNDATION. I'M GOING
14 TO LISTEN.
15 GO AHEAD.
16 THE WITNESS: BUT THE -- BUT ADENOCARCINOMA WAS
17 ACTUALLY A RELATIVELY UNCOMMON SUBTYPE OF LUNG CANCER IN THE
18 1950'S AND '60'S. BUT IT ACTUALLY HAD GONE UP TREMENDOUSLY
19 IN THAT PARTICULAR PAPER.
20 THEY ALSO LOOKED AT DATA FROM THE CONNECTICUT
21 TUMOR REGISTRY, WHICH IS THE OLDEST TUMOR REGISTRY IN THE
22 COUNTRY. AND ADENOCARCINOMA, I THINK, WENT UP, I THINK,
23 NINETEEN FOLD IN WOMEN AND TENFOLD IN MEN BETWEEN 1960 TO
24 1982, I BELIEVE. I DON'T REMEMBER THE EXACT YEARS. BUT IT'S
25 GONE UP TREMENDOUSLY.
26 Q. WELL -- EXCUSE ME. LET ME JUST INTERRUPT FOR A
27 SECOND.
28 YOU'VE GIVEN, ALSO, THE ONE SIDE OF IT --
2984
1 A. YES.
2 Q. -- WHICH HAS TO DO WITH, THERE DIDN'T USED TO
3 BE A LOT OF ADENOCARCINOMA. THERE'S A LOT MORE NOW?
4 A. THERE'S A LOT.
5 Q. BUT IT'S THE OTHER SIDE -- AND I DON'T WANT AN
6 OPINION YET --
7 A. YES.
8 Q. I WANT TO STRESS AGAIN. NO OPINIONS YET. IT'S
9 THE OTHER SIDE THAT WE'RE INTERESTED IN.
10 WHAT INFORMATION HAVE YOU -- HAVE YOU -- DO YOU
11 HAVE ON THE LIGHT CIGARETTE SIDE OR THE REDUCED-TAR CIGARETTE
12 SIDE OF THIS EQUATION, PLEASE?
13 A. WHAT INFORMATION, MEANING WHAT HAVE I READ
14 OR --
15 Q. SURE.
16 A. YES.
17 Q. IN OTHER WORDS, UPON WHAT ARE YOU GOING TO BASE
18 YOUR OPINION?
19 SCIENTIFIC WRITINGS, ARTICLES, RESEARCH?
20 A. NOT ORIGINAL RESEARCH ON MY OWN HERE. BUT IT'S
21 SCIENTIFIC WRITINGS BASED ON THE RECORDS OF MICHAEL THUN AND
22 SOMEBODY WHO ACTUALLY HAS BEEN A VERY CLOSE FRIEND -- I WAS
23 AN INTERN WITH IN BOSTON CITY IN 1972. HIS NAME IS
24 DR. DAVID BURNS. WE LOST CONTACT FOR MANY YEARS, BUT IN THE
25 LAST FIVE YEARS, OUR INTERESTS HAVE BROUGHT US TOGETHER.
26 HE'S BEEN A CO-AUTHOR ON ONE OF MY PAPERS, AND
27 HE'S WRITTEN A MAJOR PART OF THE SURGEON GENERAL'S REPORTS.
28 AND HE AND I HAVE TALKED GREATLY ABOUT THE SAFE CIGARETTE,
2985
1 AND HE'S WRITTEN VERY EXTENSIVELY ON IT BASED ON HIS OWN
2 RESEARCH.
3 Q. LET'S JUST HEAR THE NAME.
4 A. HIS NAME IS DAVID BURNS, B-U-R-N-S.
5 Q. AND DR. DAVID BURNS HAS WRITTEN PART OF THE
6 SURGEON GENERAL'S REPORTS?
7 A. YES, HE HAS.

8 Q. USED TO BE A CLASSMATE OF YOURS?
9 A. NOT A CLASSMATE. WE WERE INTERNS TOGETHER AT
10 BOSTON CITY HOSPITAL IN 1972.
11 Q. MY APOLOGY.
12 A. YES.
13 Q. HE'S WRITTEN ON THIS SUBJECT?
14 A. CORRECT.
15 Q. YOU'VE READ AND TAKEN THAT WRITING INTO
16 ACCOUNT?
17 A. YES. AND WE'VE TALKED ABOUT IT.
18 Q. AND YOU'VE TALKED ABOUT IT?
19 A. YES.
20 Q. AND YOU'VE WRITTEN PAPERS TOGETHER?
21 A. YES.
22 Q. LET'S GO TO THE OTHER ONE.
23 A. IN FACT, DR. BURNS -- THE WAY YOU GOT IN
24 CONTACT WITH ME IS -- I BELIEVE I WAS TOLD BY YOUR FIRM -- IS
25 YOU CALLED DR. BURNS AND HE WAS UNABLE TO DO IT, BUT HE
26 REFERRED YOU TO ME.
27 Q. YOU KNOW MORE ABOUT IT THAN ME.
28 A. OKAY. YES. THAT'S HOW YOU GOT ME -- THAT'S
2986
1 HOW YOU GOT IN TOUCH WITH ME.
2 Q. OKAY.
3 A. YES.
4 Q. WHO IS THE OTHER DOCTOR?
5 A. THUN.
6 WELL, IT'S T-H-U N. ACTUALLY, IF YOU SEE IN
7 THE TOP OF THE -- AT THE BOTTOM OF THE TOP, THUN, ET AL.,
8 "CIGARETTE SMOKING AND CHANGES IN HISTOPATHOLOGY OF LUNG
9 CANCER."
10 Q. THIS GUY HERE?
11 A. YES. IT LOOKS LIKE T-H-U-N, BUT IT'S ACTUALLY
12 PRONOUNCED THUN. HE'S AN EPIDEMIOLOGIST AT THE AMERICAN
13 CANCER SOCIETY. HE WAS THE FIRST AUTHOR ON THE JOURNAL OF
14 THE NATIONAL CANCER INSTITUTE PAPER.
15 WE TALKED ABOUT THIS DATA RECENTLY AS WELL, AND
16 IT WAS HIS PAPER THAT VERY MUCH BROUGHT ATTENTION TO THE
17 CHANGE IN FREQUENCY OF ADENOCARCINOMA, THE CHANGE IN THE
18 RELATIONSHIP BETWEEN SMOKING AND ADENOCARCINOMA AND THE
19 PROBABLE EXPLANATION AS TO WHY CIGARETTE SMOKING, WHICH MAY
20 NOT HAVE BEEN RELATED TO ADENOCARCINOMA OF THE LUNG IN THE
21 1950'S, IS SO CLEARLY RELATED TO ADENOCARCINOMA IN THE
22 1980'S, '90'S AND NOW.
23 Q. I'M GOING TO GET YOUR OPINION --
24 A. YES.
25 Q. -- HOPEFULLY, IN A BIT.
26 BUT JUST STAY WITH ME FOR A SECOND.
27 A. YES.
28 Q. JUST SO I CAN BE SURE THAT WE ALL UNDERSTAND
2987
1 YOU.
2 THERE WAS NO DOUBT TOBACCO CAUSED LUNG CANCER
3 GENERALLY IN THE 50'S?
4 A. THAT'S CORRECT, YES.
5 Q. BUT AS TO THIS PARTICULAR TYPE OF LUNG
6 CANCER --
7 A. YEAH.
8 Q. -- ADENOCARCINOMA, THE JURY WAS OUT ON THAT
9 QUESTION IN THE 50'S?
10 A. IT -- PROBABLY IN THE EARLY 50'S. IT PROBABLY
11 DIDN'T -- I MEAN, IT'S NOT THAT THERE'S MORE DATA. IT'S
12 REALLY A DIFFERENT DISEASE.

13 Q. GOT IT. SO ALTHOUGH TOBACCO CAUSED LUNG
14 CANCER --
15 A. YES.
16 Q. -- GENERALLY IN THE 50'S --
17 A. YES.
18 Q. -- IT PROBABLY DID NOT CAUSE ADENOCARCINOMA --
19 A. RIGHT.
20 Q. -- IN THE 50'S?
21 A. ADENOCARCINOMA AT THE TIME WAS AN UNCOMMON TYPE
22 AND PROBABLY -- AND THERE'S NO EVIDENCE THAT IT WAS RELATED
23 TO SMOKING.
24 Q. IN THE 50'S?
25 A. IN THE 50'S. IN THE EARLY 50'S.
26 Q. NOW, BASED UPON YOUR BACKGROUND, BOTH AS A
27 TREATING MEDICAL ONCOLOGIST AND MEDICAL SCHOOL PROFESSOR
28 WHO'S HAD AN INTEREST IN THIS, AND YOUR TRAINING NOW AS A
2988
1 PUBLIC HEALTH OFFICIAL --
2 A. UH-HUH.
3 Q. -- AND ALL OF THE READING YOU'VE DONE AND ALL
4 OF THE RESEARCH YOU'VE DONE, IS IT BASED UPON THOSE THINGS
5 THAT YOU'RE ABOUT TO STATE YOUR OPINION?
6 A. YES.
7 MR. PIUZE: YOUR HONOR --
8 THE COURT: PLEASE.
9 MR. CARLTON: SIDE BAR, YOUR HONOR.
10 THE COURT: NO. IT'S GOING TO -- IT GOES TO THE
11 WEIGHT.
12 Q. BY MR. PIUZE: OKAY. SO HERE'S THE QUESTION:
13 WHAT, IF ANYTHING, HAS CAUSED THE INCREASE IN ADENOCARCINOMA
14 OVER THE YEARS?
15 AND I'M GOING TO ASK YOU TWO AT ONCE, AND
16 PLEASE ANSWER THEM ONE AT A TIME.
17 A. YES.
18 Q. BUT I JUST WANT YOU TO KNOW WHERE I'M GOING.
19 WHAT, IF ANYTHING, DOES LOW-TAR OR LIGHT
20 CIGARETTES HAVE TO DO WITH THAT?
21 A. OKAY. WELL, I THINK THE FIRST QUESTION, WHAT,
22 IF ANYTHING -- YOU KNOW, IT IS THE -- AND I EMPHASIZE THE
23 QUOTE, BECAUSE, YOU KNOW, THE SAFE CIGARETTE, OR THE MYTH OF
24 SAFE CIGARETTES.
25 I THINK, YOU KNOW, BASED ON THE, YOU KNOW, THE
26 DATA THAT WAS PUBLISHED IN THE EARLY 1950'S, CIGARETTES AT
27 THAT TIME WERE -- YOU KNOW, THERE WERE NO FILTERS. YOU JUST,
28 BASICALLY, PUT THE TOBACCO INTO YOUR MOUTH. AND IT WAS VERY,
2989
1 VERY IRRITATING.
2 AND ONE OF THE THINGS ABOUT, YOU KNOW, THE
3 SQUAMOUS CELL CANCER, AS WELL AS SMALL CELL CANCER -- THOSE
4 ARE THE TWO TYPES OF LUNG CANCER THAT HAVE BEEN KNOWN TO BE
5 RELATED TO SMOKING SINCE THE EARLY 1950'S AND BEFORE -- TEND
6 TO OCCUR IN THE CENTRAL PART OF THE LUNG.
7 AND THE CIGARETTES AT THAT TIME CONTAINED VERY
8 LARGE PARTICULATE MATTER, AND I'M NOT A CHEMIST SO I CAN'T
9 TELL YOU PRECISELY WHAT THOSE ARE, BUT PEOPLE REALLY COULD
10 NOT INHALE THEM VERY, VERY DEEPLY. SO WE DIDN'T REALLY, YOU
11 KNOW, TAKE A VERY DEEP PUFF.
12 AND THE CARCINOGENS IN TOBACCO SMOKE PRIMARILY
13 WERE EXPOSED TO THE CENTRAL PARTS OF THE LUNG. AND THE CELLS
14 THAT BECAME CANCER CELLS WERE THE CELLS THAT BECAME SQUAMOUS
15 CELL CANCER AND SMALL CELL CANCER. SO IN THE 50'S, MOST OF
16 THE LUNG CANCERS WE SAW WERE IN THE CENTER OF THE LUNG, AND
17 ALMOST ALL OF THEM WERE -- OR THE VAST MAJORITY OF THEM WERE

18 RELATED TO -- WERE SQUAMOUS CELL CANCER OR SMALL CELL CANCER.
19 YES.
20 Q. I JUST HAPPEN TO HAVE --
21 A. YES.
22 Q. -- THESE LUNGS.
23 A. YES.
24 Q. COULD I GET YOU TO STEP DOWN FOR MINUTE,
25 PLEASE.
26 A. YES.
27 Q. SHOW US THE CENTRAL PART OF THE LUNGS THAT
28 YOU'RE TALKING ABOUT.
2990
1 A. THIS IS THE AIRWAY.
2 Q. EXCUSE ME FOR ONE SECOND --
3 A. YES.
4 Q. -- SO ALL OF THESE PEOPLE MAY HAVE A LOOK.
5 A. OKAY. THIS IS THE AIRWAY. THIS IS THE LUNG
6 ITSELF. SO THE CENTRAL PART OF THE LUNG IS IN HERE. THIS IS
7 THE LEFT LUNG. THIS IS THE RIGHT LUNG THAT'S SITTING -- IN
8 HERE IS THE HEART THAT YOU DON'T SEE.
9 SO THE SQUAMOUS CELL CANCERS AND SMALL CELL
10 CANCERS TEND TO ARISE IN THE MAJOR AIRWAYS OR THIS PART OF
11 THE LUNG WHERE THE AIRWAYS ARE VERY LARGE.
12 THE CARCINOGENS -- THE CIGARETTES THAT PEOPLE
13 WERE EXPOSED TO AT THAT TIME WERE JUST VERY, VERY IRRITATING,
14 AND PEOPLE DIDN'T REALLY TAKE A VERY DEEP PUFF, SO PEOPLE WHO
15 WERE SMOKERS WERE UNABLE TO TAKE VERY, VERY DEEP PUFFS, OR AT
16 LEAST, THEY DIDN'T TAKE VERY MANY DEEP PUFFS AT THAT TIME.
17 BUT THE BOTTOM LINE IS THAT IT WAS REALLY THE
18 CENTRAL STRUCTURES OF THE LUNG THAT WERE EXPOSED TO THE
19 CARCINOGENS PRESENT IN TOBACCO SMOKE, AND THAT IS WHY WE
20 BELIEVE THAT SQUAMOUS CELL CANCERS AND SMALL CELL CANCERS
21 WERE THE MOST COMMON HISTOLOGY.
22 THE MOST COMMON SUBTYPES IN ORDER FOR AN
23 ADENOCARCINOMA TO DEVELOP, THE CELLS THAT NEED TO BECOME
24 CANCER CELLS, ARE LOCATED IN THE PERIPHERY OF THE LUNG, AND
25 THOSE CELLS WERE NOT REALLY EXPOSED, AT LEAST IN SUFFICIENT
26 DOSE, TO THE CARCINOGENS TO MAKE THEM CANCEROUS.
27 Q. LET'S JUST STOP THERE FOR A SECOND.
28 A. YES.
2991
1 Q. '50'S, NO FILTERS, STRONG TOBACCO?
2 A. YES.
3 Q. INHALE IT, IT HURTS; DON'T INHALE TOO DEEPLY,
4 SO THE SMOKE BASICALLY STAYS IN THE MIDDLE?
5 A. THAT'S CORRECT.
6 Q. AND THE CANCER BASICALLY STAYS IN THE MIDDLE?
7 A. YES.
8 Q. IF YOU'RE GOING TO GET AN ADENOCARCINOMA,
9 YOU'RE GOING TO GET IT OUT ON THE PERIPHERY HERE?
10 A. THAT'S CORRECT.
11 Q. IN THE '50'S, NO ONE WAS INHALING IN TOO DEEPLY
12 BECAUSE IT WAS TOO STRONG?
13 A. THAT'S RIGHT.
14 Q. THERE WASN'T ANY ADENOCARCINOMA, VERY MUCH?
15 A. OR THERE WASN'T THAT MUCH.
16 Q. AND WHATEVER ADENOCARCINOMA THERE WAS AT THE
17 TIME MAY NOT HAVE BEEN RELATED TO SMOKING?
18 A. RIGHT. CERTAINLY, THERE WERE A LOT OF
19 ADENOCARCINOMAS IN NONSMOKERS. MANY, MANY.
20 Q. ALL RIGHT. SO THEN, I'M GOING TO GIVE YOU A
21 NEWS FLASH.
22 FILTERED CIGARETTES CAME ALONG.

23 A. YES.

24 Q. WHAT DOES THAT HAVE TO DO WITH IT NOW?

25 A. WELL, THE HOPE WAS THAT THIS WAS GOING TO BE A
26 SAFE CIGARETTE. YOU KNOW, INSTEAD OF, YOU KNOW, INSTEAD OF
27 INHALING THE CARCINOGENS, IT WAS GOING TO FILTER OUT
28 CARCINOGENS, SO THEY WOULD NEVER BE EXPOSED TO CARCINOGENS.
2992

1 THE HOPE WAS THAT PEOPLE WOULDN'T DEVELOP LUNG CANCER FROM
2 THE SAFE CIGARETTE. THAT'S THE OBJECTIVE.

3 Q. WHAT HAPPENED?

4 A. IT DIDN'T WORK THAT WAY. LUNG CANCER -- YOU
5 KNOW, THEY STARTED MAKING FILTERED CIGARETTES IN THE LATE
6 50'S, AND BY THE 60'S, THAT WAS PRETTY MUCH WHAT WAS DONE
7 MOST OF THE TIME. DID THE LUNG CANCER INCIDENCE GO DOWN?
8 NO. IT KEPT GOING UP. IT WENT UP
9 DRAMATICALLY. BUT THERE WAS A SHIFT. WHEN I WAS IN MEDICAL
10 SCHOOL -- I ENTERED MEDICAL SCHOOL IN 1968. YOU KNOW, I
11 REMEMBER AS A FIRST-YEAR MEDICAL STUDENT IN PATHOLOGY -- AND
12 THIS WAS NOT MY PARTICULAR INTEREST, BUT I REMEMBER THIS --
13 YOU KNOW, WE WERE TOLD THAT, YOU KNOW, SQUAMOUS CELL CANCER
14 WAS THE MOST COMMON CAUSE OF LUNG CANCERS.
15 AND I ACTUALLY -- I BELIEVE I WAS TAUGHT AT
16 THAT TIME -- BUT IN HINDSIGHT, THE DATA, IT WASN'T TRUE --
17 THAT ADENOCARCINOMA PROBABLY WASN'T RELATED TO SMOKING, BUT
18 THERE SEEMED TO BE A SHIFT. THERE WERE MORE ADENOCARCINOMAS
19 DEVELOPING. AND NOBODY QUITE UNDERSTOOD THAT. BUT IT WAS
20 STILL THE MINORITY.

21 BUT THROUGH THE DECADES OF THE '70'S AND 80'S,
22 IT BECAME VERY CLEAR THAT ADENOCARCINOMA WAS EMERGING AS THE
23 MOST COMMON FORM OF LUNG CANCER, WHICH IT IS NOW. AND
24 MOREOVER, YOU KNOW, NUMEROUS REPORTS WERE DEMONSTRATING THAT
25 ADENOCARCINOMA WAS FAIRLY CONVINCINGLY RELATED TO SMOKING.
26 THOUGH, YOU KNOW, THERE WAS NOT A SINGLE REPORT
27 THAT SO BEAUTIFULLY DEMONSTRATED IT UNTIL THE REPORT OF
28 MICHAEL THUN, ALTHOUGH IT REALLY SUMMARIZED THE LITERATURE.
2993

1 IT WASN'T REALLY -- WASN'T GROUND BREAKING NEW DATA. IT WAS
2 BECOMING CLEAR THAT ADENOCARCINOMA WAS, IN FACT, RELATED TO
3 CIGARETTE SMOKING.

4 Q. OVER THE PERIOD OF TIME, THERE WAS MORE AND
5 MORE ADENOCARCINOMA?

6 A. YES.

7 Q. AND IT WAS CLEARER AND CLEARER IT WAS RELATED
8 TO CIGARETTE SMOKING?

9 A. YES.

10 Q. AND YOU ARE GOING TO SAY YOU ATTRIBUTE THIS TO
11 FILTERED CIGARETTES?

12 A. RIGHT. THE ANSWER IS YES.

13 Q. AND THE NEXT QUESTION IS WHY?

14 A. YES. WELL, YOU KNOW, I THINK THE
15 EXPLANATIONS -- AND AGAIN, I'VE READ THIS IN WORKS OF BOTH
16 MICHAEL THUN AND THAT PAPER -- AND DAVID BURNS, AND WE'VE
17 DISCUSSED IT AT LENGTH.

18 AND WHAT THEIR FEELINGS ARE -- AND THEY'RE
19 PROBABLY THE LEADERS HERE -- IS THAT, YOU KNOW, NOW, YOU
20 KNOW, THE SAFE CIGARETTE HAS CHANGED THINGS. IT'S NO LONGER
21 QUITE AS IRRITATING. SMOKERS ACTUALLY TEND TO, YOU KNOW, ARE
22 ADDICTED TO NICOTINE AND NEED TO GET A CERTAIN AMOUNT OF
23 NICOTINE, SO THERE'S EXTENSIVE LITERATURE ON THE WAY SMOKERS
24 COMPENSATE FOR THE SAFE CIGARETTE.

25 IF ONE IS A SMOKER, YOU TAKE DEEPER PUFFS OR
26 YOU TAKE MORE PUFFS. YOU SMOKE IT --

27 MR. CARLTON: OBJECT, YOUR HONOR, TO THE NARRATIVE AND

28 TO BEYOND THE SCOPE OF HIS EXPERTISE.

2994

1 THE COURT: ALL RIGHT. WELL, I DON'T KNOW ABOUT
2 BEYOND THE SCOPE. THERE IS AN AREA OF GOING ON HERE.

3 Q. BY MR. PIUZE: I'LL TELL YOU WHAT. I

4 APPRECIATE YOUR ENTHUSIASM.

5 A. YES.

6 Q. BUT MAKE IT A SHORTER ENTHUSIASM?

7 A. BOTTOM LINE IS THAT PEOPLE ARE TAKING DEEPER
8 PUFFS, AND THE CARCINOGENS ARE NOW APPEARING IN THE
9 PERIPHERY, IN THE END OF THE LUNG. SO THE CELLS THAT ARE
10 BECOMING CANCER CELLS ARE NO LONGER IN THE CENTER BUT ARE NOW
11 IN THE PERIPHERY OF THE LUNG, AND THE CANCERS CELLS -- THOSE
12 CELLS TEND TO DEVELOP INTO ADENOCARCINOMAS AS OPPOSED TO
13 SQUAMOUS CELL CANCERS.

14 Q. THANK YOU.

15 A. THAT'S THE ANSWER.

16 Q. WE'VE HAD SEVERAL WITNESSES HERE WHO DISCUSSED
17 FROM ONE PERSPECTIVE OR ANOTHER THE IDEA OF COMPENSATION, SO
18 THE JURY'S HEARD THAT.

19 A. YES.

20 Q. IS A BOTTOM LINE THAT WITH CIGARETTES THAT HAVE
21 LOWER TAR AND LOWER NICOTINE, THE PERSON WHO'S SMOKING IT IN
22 ORDER TO GET HIS OR HER DOSE OF NICOTINE, TAKES IT IN
23 FURTHER?

24 A. YES.

25 MR. CARLTON: OBJECTION. FOUNDATION.

26 THE COURT: OVERRULED.

27 Q. BY MR. PIUZE: AND AS THAT PERSON TAKES IT IN
28 FURTHER, DOES THE SMOKE, AS OPPOSED TO THE OLD DAYS WITH THE
2995

1 STRONG CIGARETTES, INSTEAD OF STAYING HERE IN THE MIDDLE, GET
2 OUT HERE ON THE WINGS TO THE SIDE?

3 A. YES.

4 Q. AND AS THE SMOKE GETS OUT HERE ON THE WINGS TO
5 THE SIDE, IS IT GETTING TO THE PLACE WHERE ADENOCARCINOMA
6 DEVELOPS?

7 A. YES.

8 Q. IS THE RISE IN THE INCIDENCE OF ADENOCARCINOMAS
9 OVER THE COURSE OF THE LAST TWO TO THREE DECADES DUE, IN YOUR
10 OPINION, TO THE ADVENT OF -- I'M NOT GOING TO SAY SAFER
11 CIGARETTES -- BUT LIGHTER CIGARETTES?

12 A. YES. WITHOUT ANY DOUBT.

13 Q. THANKS.

14 NEW SUBJECT.

15 ARE YOU AWARE THAT OVER THE COURSE OF THE LAST
16 SEVERAL DECADES NOW, IN ADDITION TO FILTERED CIGARETTES,
17 THERE ARE LIGHT -- SO-CALLED LIGHT FILTERED CIGARETTES AND
18 THEN ULTRALIGHT FILTERED CIGARETTES?

19 A. YES.

20 Q. ARE YOU AWARE OF THE FACT THAT AS THEY GET
21 LIGHTER AND LIGHTER, THE NICOTINE GETS LESS AND LESS?

22 A. YES.

23 Q. AND IF THE NICOTINE GETS LESS AND LESS, DOES
24 THAT MEAN THAT THE INHALATION HAS TO GET MORE AND MORE TO GET
25 THE DOSE OF NICOTINE?

26 A. YES.

27 Q. I'VE GOT TABLES 1 THROUGH 10 --

28 A. YES.

2996

1 Q. -- STILL HERE?

2 A. YES.

3 Q. AND I'M NOT SURE WHAT, IF ANYTHING, TO DO WITH

4 THEM ON THIS PART OF OUR DISCUSSION.
5 DO I NEED THEM?
6 A. I'M NOT SURE.
7 Q. OKAY.
8 A. PROBABLY, YOU KNOW, THOSE TWO -- THEY INCLUDE
9 ACTUALLY THE INITIAL STUDIES THAT ACTUALLY SHOW THE LACK OF
10 ASSOCIATION. YOU ACTUALLY PROBABLY DON'T -- I'VE ACTUALLY --
11 Q. BEFORE I TAKE THIS ONE DOWN, THEN, CAN WE
12 SAY -- WHEN DID THIS STUDY END THAT BEGAN IN '82?
13 A. THEY'RE STILL FOLLOWING IT. IN FACT, JUST LAST
14 MONTH, THERE WAS A LOT OF PRESS ABOUT A REPORT ABOUT THE
15 RELATIONSHIP BETWEEN CONTRACEPT -- ESTROGENS AND OVARIAN
16 CANCER. THAT'S ACTUALLY FROM THIS SAME STUDY. SO I WAS
17 ACTUALLY SURPRISED. I THOUGHT IT HAD ALREADY ENDED. SO THEY
18 ARE STILL FOLLOWING THE PATIENTS.
19 Q. WHAT YEAR IS THIS DATA THAT STARTED IN '82 GOOD
20 FOR?
21 IS IT '97?
22 A. YES. RIGHT.
23 Q. IN OTHER WORDS --
24 A. THE EXPOSURES WERE MEASURED IN -- I THINK ALL
25 THE PATIENTS WERE ENTERED ONTO THE STUDY BETWEEN '82, AND I
26 BELIEVE, '85. SO THE CATEGORIZATION OF EVER SMOKERS WAS AS
27 OF '82 TO '85.
28 Q. RIGHT.
2997
1 A. THE DEVELOPMENT OF ADENOCARCINOMAS -- YEAH.
2 Q. WHAT I'M GETTING AT HERE IS THESE STATISTICS
3 THAT ARE UP ON THE BOARD --
4 A. YES.
5 Q. -- FOR THE JURY TO SEE, WERE THESE GOOD AS OF
6 1997?
7 A. YES.
8 Q. AND IN 1997 FOR MALES, DO THE STATISTICS SHOW
9 THAT YOU'VE GOT A 16-1/2 TIMES GREATER CHANCE OF GETTING
10 ADENOCARCINOMA AS A SMOKER THAN AS A -- I'M SORRY -- AS AN
11 EVER SMOKER?
12 A. THAT'S CORRECT.
13 Q. INCLUDING THOSE GUYS WHO ONLY HAD FIVE PACKS IN
14 THEIR WHOLE LIFE?
15 A. YES.
16 Q. AS OPPOSED TO SOMEONE WHO'S NEVER HAD ONE?
17 A. THAT'S CORRECT.
18 Q. AND AS OF 1997, WERE THE STATISTICS THAT THAT
19 MAN WHO GETS ADENOCARCINOMA HAS A 94 PERCENT CHANCE OF HAVING
20 SMOKED?
21 A. WELL, ACTUALLY, IT MEANS THAT OF THE
22 ADENOCARCINOMAS, 94 PERCENT OF THEM, YOU KNOW, WERE
23 ATTRIBUTABLE TO SMOKING OR GENERALLY --
24 Q. OKAY.
25 A. -- THAT HAD THOSE PEOPLE WHO SMOKED NOT SMOKED,
26 YOU WOULD HAVE ONLY SEEN -- YOU WOULD HAVE SEEN 19 OUT OF 20
27 OR SO WOULD HAVE NOT OCCURRED.
28 Q. OKAY. 94. SO THAT --
2998
1 A. YES.
2 Q. -- 94 -- SAY IT AGAIN?
3 A. IF PEOPLE HAD NOT SMOKED, 94 PERCENT OF THOSE
4 CANCERS WOULD NOT HAVE APPEARED, OR CLOSE TO 19 OUT OF 20 OF
5 THEM.
6 Q. RIGHT.
7 A. 19 OUT OF 20.
8 Q. AND THAT STATEMENT, FOR THE COURT REPORTER, WAS

9 19 OUT OF 20 IS 95 PERCENT?
10 A. IS 95 PERCENT.
11 Q. AND HERE --
12 A. AND HERE, IT'S ACTUALLY 94 PERCENT.
13 Q. AND HERE, WE'RE DEALING WITH 94.
14 A. THAT'S CORRECT.
15 Q. BAC. DO YOU KNOW WHAT THOSE INITIALS ARE?
16 A. I SURE DO.
17 Q. WHAT ARE THEY?
18 A. IT STANDS FOR BRONCHIOLOALVEOLAR CARCINOMA OR
19 BRONCHIOALVEOLAR CARCINOMA. THE TWO TERMS ARE USED FOR THE
20 SAME THING.
21 Q. WHEN SHE ASKS YOU, SHE JUST WANTS A REPEAT, NOT
22 AN EXPLANATION.
23 A. YES.
24 Q. ALL RIGHT. IS THAT A TYPE OF ADENOCARCINOMA?
25 A. YES, IT IS.
26 Q. AND HAS THERE BEEN LITERATURE IN THE PAST THAT
27 SAYS, WE'RE NOT SURE THAT THERE'S ANY RELATIONSHIP BETWEEN
28 BAC, BRONCHIOLOALVEOLAR CARCINOMA, AND SMOKING?
2999
1 A. THERE IS SOME DATA. THERE IS SOME LITERATURE
2 THAT SAYS THAT.
3 Q. REMEMBER THAT AT ONE POINT, THERE WAS
4 LITERATURE THAT SAID THERE'S NO RELATIONSHIP BETWEEN
5 ADENOCARCINOMA --
6 A. THAT'S CORRECT.
7 Q. -- AND SMOKING?
8 A. THAT'S CORRECT.
9 Q. AND SO NOW WE'RE DEALING WITH A SUBGROUP --
10 A. YES.
11 Q. -- OF ADENOCARCINOMA?
12 A. YES.
13 Q. DO YOU BELIEVE THERE'S A RELATIONSHIP BETWEEN
14 BRONCHIOLOALVEOLAR CARCINOMA AND SMOKING?
15 A. I DO.
16 Q. WHY?
17 A. I'M SORRY?
18 Q. WHY?
19 A. WELL, SEVERAL REASONS.
20 FIRST, YOU KNOW, IN THE TABLE THAT WE LOOKED AT
21 FROM THE CANCER PREVENTION STUDIES I, THEY DID NOT BREAK DOWN
22 BAC FROM THE OTHER TYPES. SO THE BAC'S ARE IN THERE.
23 THEY'RE JUST SORT OF INCLUDED AMONG THE ADENOCARCINOMAS. SO
24 WHEN WE SAY 94 PERCENT OF THE ADENOCARCINOMAS ARE RELATED TO
25 SMOKING, THAT INCLUDES THE BAC'S.
26 THERE HAVE BEEN -- AND I WANTED TO GIVE A CALL
27 TO DR. THUN LAST WEEK JUST TO MAKE SURE THAT THAT POINT WAS
28 CORRECT. YOU KNOW, THAT THEY JUST HAD NO WAY OF KNOWING WHO
3000
1 IS WHO. SO THE BAC'S ARE IN THERE. THEY'RE JUST INCLUDED.
2 THERE HAS BEEN A RISE IN BAC IN RECENT DECADES.
3 SOME STUDIES ACTUALLY SUGGEST -- THOUGH I'M NOT SURE THIS IS
4 REALLY TRUE -- THAT MUCH OF THE RISE IN ADENOCARCINOMA IS DUE
5 TO BAC, SO --
6 Q. WHAT DOES THAT MEAN?
7 LET ME STOP YOU THERE.
8 A. YES.
9 Q. WHAT DOES THAT MEAN?
10 A. WELL, YOU KNOW, AS WE'VE ALREADY SAID, THAT
11 OVER THE LAST SEVERAL DECADES, WE HAVE SEEN A REMARKABLE
12 INCREASE IN THE INCIDENCE OF ADENOCARCINOMAS OF THE LUNG.
13 Q. RIGHT.

14 A. WHEN PATHOLOGISTS HAVE SPECIFICALLY LOOKED AT
15 THE SUBTYPE OF ADENOCARCINOMA OF BAC, THEY HAVE NOTED THAT,
16 YOU KNOW, BAC'S HAVE GONE UP. IN ONE STUDY, IT SAID IT WENT
17 UP FROM, I THINK, 5 PERCENT TO ABOUT 15 OR 17 PERCENT.

18 Q. SO LET'S STOP THERE FOR A SECOND.

19 A. YES.

20 Q. DOES THAT MEAN THAT PATHOLOGISTS ARE GETTING
21 BETTER, THEY'RE GETTING MORE SOPHISTICATED AND, THEREFORE,
22 THEY'RE NOW SEEING STUFF THAT WAS THERE THE WHOLE TIME, OR
23 DOES IT MEAN THAT, TRULY, THERE ARE MORE BAC'S THAN THERE
24 USED TO BE?

25 A. I ACTUALLY PROBABLY AM NOT THE BEST PERSON TO
26 ASK THAT QUESTION, BUT I CERTAINLY SPEAK TO PATHOLOGISTS, TO
27 PULMONARY PATHOLOGISTS ABOUT THIS.

28 I THINK THE CRITERIA FOR DIAGNOSING ARE
3001

1 CHANGING SOMEWHAT. I THINK, YOU KNOW, LOTS AND LOTS OF TIMES
2 YOU'LL SEE A REPORT THAT JUST SAYS ADENOCARCINOMA, AND THAT'S
3 GOOD ENOUGH FOR ME, AS A CLINICIAN.

4 SO USUALLY, VERY OFTEN, WE ACTUALLY DON'T BREAK
5 IT DOWN. IT WILL SOMETIMES BE BROKEN DOWN IF A PATHOLOGIST
6 IS INTERESTED. NOW, THERE IS A CLASSIC SYNDROME, YOU KNOW,
7 THAT HAS BEEN DESCRIBED FOR 100 YEARS, YOU KNOW, WHERE A
8 PATIENT IS PRESENT WITH WHAT TURNS OUT TO BE A LUNG CANCER.
9 BUT IF YOU LOOK AT THEIR X-RAYS, IT LOOK LIKE IT'S A
10 PNEUMONIA. DOESN'T ACTUALLY LOOK LIKE A CANCER.

11 PATIENTS HAVE ACTUALLY A VERY INTENSE COUGH.
12 THOSE PATIENTS DO VERY, VERY BADLY, YOU KNOW. AND THOSE ARE
13 BAC. AND YOU KNOW, THAT'S NOT WHAT WE'RE SEEING. I'VE BEEN
14 A THORACIC ONCOLOGIST. I'VE PROBABLY TAKEN CARE OF MANY
15 THOUSANDS OF LUNG CANCER PATIENTS. PEOPLE WOULD COME TO THE
16 INSTITUTION. I'VE PROBABLY SEEN THREE OF THOSE IN MY
17 LIFETIME. SO THAT IS --

18 Q. LET ME STOP YOU THERE.

19 A. YES.

20 Q. I APOLOGIZE.

21 A. YES. YES.

22 Q. YESTERDAY, WE HAD A PULMONARY PATHOLOGIST.

23 PULMONARY MEANS LUNG PATHOLOGY?

24 A. YES.

25 Q. NOW, YOU'RE SAYING A THORACIC ONCOLOGIST.

26 DOES THAT MEAN THE CANCER YOU DEAL WITH IS IN
27 HERE?

28 A. YES. NOT JUST LUNG CANCER, BUT THORACIC
3002

1 ONCOLOGIST MEANS CHEST CANCERS.

2 Q. GOT IT. CHEST, LUNG, BREAST CANCER?

3 A. BREAST CANCER IS -- I DO DEAL WITH BREAST
4 CANCERS, BUT IT'S NOT THORACIC. THE OTHER ONE IS A DISEASE
5 CALLED MESOTHELIOMA.

6 Q. WE'VE HEARD OF THAT.

7 A. YES. WHICH IS NOT RELATED TO SMOKING.

8 Q. RIGHT.

9 A. THAT ALSO IS WITHIN THE PURVIEW OF THE THORACIC
10 ONCOLOGIST.

11 Q. GOT IT.

12 A. YES.

13 Q. SO THIS IS YOUR CAREER AS A THORACIC
14 ONCOLOGIST?

15 A. YES. THIS CLASSIC SYNDROME THAT WE READ ABOUT,
16 YOU KNOW, SOMEBODY PRESENTS WITH WHAT LOOKS LIKE PNEUMONIA.
17 NOTHING LOOKS LIKE A MASS ON X-RAY WHERE THEY HAVE THIS, YOU
18 KNOW, THIS INCREDIBLE COUGH, WHERE THEY COUGH UP, COUGH

19 CONSTANTLY, AND COUGH UP HUGE AMOUNTS OF SPUTUM. YOU KNOW,
20 THAT'S A SYNDROME THAT WAS DESCRIBED, I BELIEVE, IN THE LATE
21 1800'S. I DON'T EXACTLY KNOW THAT.
22 AND THAT THOSE -- YOU KNOW, THAT IS BAC. YOU
23 KNOW, THE TERM HAS BEEN USED FOR A LONG TIME. BUT IT'S VERY
24 CLEAR THAT THAT'S NOT WHAT WE'RE SEEING AS THE RISE OF BAC.
25 WHAT WE'RE SEEING IN THE RISE OF BAC ARE WHAT LOOKS LIKE
26 TYPICAL LUNG CANCER, A MASS THAT LOOKS LIKE A MASS ON CHEST
27 X-RAY OR CAT SCAN THAT BEHAVES LIKE LUNG CANCER.
28 YES.

3003

1 Q. SO HERE'S WHERE WE WERE.

2 A. YES.

3 Q. THE QUESTION TO YOU WAS: IS BAC RELATED TO
4 SMOKING?

5 A. YES.

6 Q. CAUSED BY SMOKING.

7 THE ANSWER WAS YES?

8 A. YES.

9 Q. AND THE NEXT QUESTION WAS WHY.

10 AND THAT'S WHEN I INTERPRETED YOU.

11 A. THERE HAVE BEEN -- THE WHY IS, NUMBER ONE,

12 IS -- I THINK I'M GOING TO GIVE YOU THE DIRECT ANSWER IN A
13 SECOND.

14 BUT THE INDIRECT ANSWER IS THAT THERE'S A RISE
15 IN BAC, ALONG WITH LUNG CANCER, ALONG WITH ADENOCARCINOMA IN
16 GENERAL. AND WE'VE SEEN THAT THE ASSOCIATION BETWEEN
17 ADENOCARCINOMAS, WHICH INCLUDE THE BAC'S, AND SMOKING IS
18 UNEQUIVOCAL. SO A RISE OF ADENOCARCINOMA, WHICH INCLUDES
19 BAC, AND THE CLEAR ASSOCIATION BETWEEN ADENOCARCINOMA AND
20 SMOKING WOULD STRONGLY SUGGEST THAT THOSE BAC'S ARE RELATED
21 TO SMOKING, PARTICULARLY BECAUSE, USUALLY, WE DON'T SORT OF
22 BREAK THEM OUT AS BAC'S.

23 BUT THERE HAVE BEEN TWO RELATIVELY SMALL
24 STUDIES. TWO SMALL -- YOU KNOW, WHAT WE CALL CASE CONTROL
25 STUDIES, WHICH ARE NOT PROSPECTIVE COHORT STUDIES, THAT HAVE
26 ACTUALLY EXPLORED THE RELATIONSHIP BETWEEN CIGARETTE SMOKING
27 AND BAC.

28 Q. I'M GOING TO ASK YOU ABOUT THOSE TWO CASE
3004

1 CONTROL STUDIES --

2 A. YES.

3 Q. -- AFTER WE HAVE OUR MORNING BREAK.

4 IF THAT'S ALL RIGHT WITH THE COURT.

5 A. YES.

6 THE COURT: LET'S DO IT.

7 THE WITNESS: OKAY.

8 THE COURT: ALL RIGHT.

9 LADIES AND GENTLEMEN, WE'LL BE BACK AT

10 11 O'CLOCK SHARP.

11 THANK YOU.

12 DON'T DISCUSS THE CASE WITH ANYONE.

13

14 (RECESS.)

15

16 THE COURT: OUR JURY PANEL IS PRESENT; THE WITNESS IS
17 PRESENT; COUNSEL ARE PRESENT.

18 THE WITNESS IS ON THE STAND.

19 SIR, YOU UNDERSTAND YOU ARE STILL UNDER OATH?

20 THE WITNESS: THANK YOU, YOUR HONOR.

21 THE COURT: MR. PIUZE.

22 MR. PIUZE: THANKS.

23 Q. LET'S TALK ABOUT RICHARD BOEKEN JUST A BIT.

24 ARE YOU READY?
25 A. YES.
26 Q. YOU'VE REVIEWED ALL OF HIS MEDICAL RECORDS?
27 A. I DID.
28 Q. HE'S GOT LUNG CANCER?
3005
1 A. YES.
2 Q. ADENOCARCINOMA?
3 A. YES.
4 Q. BAC?
5 A. NO.
6 Q. YOU'VE BEEN TREATING LUNG CANCER FOR 22 YEARS.
7 YOU'VE BEEN LOOKING AT PATHOLOGY REPORTS FOR THAT LONG?
8 A. YES.
9 Q. THE PATHOLOGY REPORT IN THIS CASE SAYS,
10 PAPILLARY ADENOCARCINOMA.
11 ARE YOU AWARE OF?
12 A. YES.
13 Q. DO YOU AGREE WITH THAT?
14 A. WELL, IT'S TOTALLY CONSISTENT WITH THE DATA. I
15 HAVE NO INDEPENDENT KNOWLEDGE OF IT.
16 Q. MEANING, YOU HAVEN'T LOOKED AT THE SLIDES?
17 A. RIGHT. AND IF I DID, I COULDN'T INTERPRET
18 THEM. I'M NOT A PATHOLOGIST.
19 Q. THE PATHOLOGY REPORT, HOWEVER --
20 A. YES.
21 Q. WE WERE LOOKING AT THIS YESTERDAY.
22 A. YES.
23 Q. IN ADDITION TO HAVING THE DIAGNOSIS, THE FINAL
24 DIAGNOSIS, AS PAPILLARY ADENOCARCINOMA OF THE LUNG, ALSO
25 CONTAINS A FROZEN SECTION?
26 A. YES.
27 Q. WHICH WAS OF THREE LYMPH NODES. FIRST ONE
28 NEGATIVE, SECOND ONE NEGATIVE, THIRD ONE SAID, BRONCHIAL
3006
1 ALVEOLAR CARCINOMA.
2 YOU'RE AWARE OF THAT?
3 A. YES.
4 Q. I'VE ALREADY TOLD YOU THAT WE HAD A PATHOLOGIST
5 HERE, PULMONARY PATHOLOGIST --
6 A. YES.
7 Q. -- WHO DISCUSSED THIS IN DETAIL.
8 FROM A CLINICAL, MEANING TREATING, CLINICAL
9 THORACIC ONCOLOGIST POINT OF VIEW, HERE'S THIS PATH REPORT
10 WITH A FINAL DIAGNOSIS OF ADENOCARCINOMA, BUT THERE'S A
11 FROZEN SECTION THAT SAYS, BAC.
12 A. YES.
13 Q. WHY DO YOU SAY MR. BOEKEN HAD ADENOCARCINOMA
14 AND DID NOT HAVE BAC?
15 A. WELL, IF AN EXPERT PATHOLOGIST SAID IT WAS BAC,
16 I WOULDN'T DISPUTE IT. BUT I MEAN, FROZEN SECTION IS DONE IN
17 THE OPERATING ROOM TO SEE, DO YOU HAVE CANCER AND TO
18 SOMETIMES MAKE A PROVISIONAL DIAGNOSIS.
19 ONCE WE -- YOU KNOW, THERE ARE A LOT OF
20 DEFICIENCIES OF THAT. AND ONCE WE HAVE THE PERMANENCE, IT'S
21 THE PERMANENCE THAT WE PAY ATTENTION TO. SO ON THE
22 PERMANENCE SECTION, THERE WAS NO MENTION OF BAC.
23 SO IF I WERE HIS PHYSICIAN CARING FOR HIM, AND
24 HIS -- AND THE PHYSICIANS WHO DID CARE FOR HIM MADE THE SAME
25 ASSUMPTION. THEY TREATED THIS AS AN ADENOCARCINOMA. THEY
26 COULD HAVE CALLED IT A PAPILLARY ADENOCARCINOMA, BUT THAT HAS
27 NO TREATMENT IMPLICATIONS ABOVE AND BEYOND THE FACT THAT HE
28 HAD AN ADENOCARCINOMA.

3007

1 Q. AS A RESULT OF REVIEWING ALL OF THE MEDICAL
2 RECORDS THAT MY FIRM PROVIDED YOU ON RICHARD BOEKEN, IS IT
3 YOUR OPINION THAT HE HAD ADENOCARCINOMA OF THE LUNG?

4 A. YES.

5 Q. THAT HE DID NOT HAVE BAC OR BRONCHIOLOALVEOLAR
6 CARCINOMA OF THE LUNG --

7 A. IT IS MY OPINION.

8 Q. -- DESPITE THAT FACT?

9 A. YES.

10 Q. I WANT TO PROCEED ON A LITTLE BIT --

11 A. YES.

12 Q. -- REGARDING BRONCHIOLOALVEOLAR CARCINOMA.
13 ARE YOU READY?

14 A. YES.

15 Q. NOW, YOU MENTIONED -- I DON'T WANT TO MIX THIS
16 UP. I'M NOT SURE WHAT YOU MENTIONED.

17 I'M GOING TO MARK TWO MORE OF THESE CHARTS AS
18 8002.102.

19 THE COURT: .102. 8002.

20 MR. PIUZE: .102. THAT'S TABLE 9.

21

22 (I.D. 8002.102 - STRAUSS TABLE 9)

23

24 THE WITNESS: YES.

25 Q. BY MR. PIUZE: AND I'M GOING TO SHOW --

26 I'M ALSO GOING TO MARK TABLE 10 AS 8002.103 AND
27 SHOW THAT IN JUST A LITTLE BIT.

28 /

3008

1 (I.D. 8002.103 - STRAUSS TABLE 10)

2

3 Q. BY MR. PIUZE: NOW, SEVERAL WEEKS AGO, THE JURY
4 HEARD ABOUT COHORT STUDIES, AND YOU JUST MENTIONED THAT
5 BRIEFLY AGAIN.

6 A. YES.

7 Q. AND SEVERAL WEEKS AGO, THE JURY HEARD ABOUT
8 CASE CONTROL STUDIES. AND I'D LIKE YOU TO JUST VERY BRIEFLY
9 REMIND US WHAT A CASE CONTROL STUDY IS?

10 A. THE INITIAL STUDIES IN 1950 WERE CASE CONTROL
11 STUDIES, INCLUDING, YOU KNOW, THE ONE BY DR. DOLL, THE
12 INITIAL ONE.

13 A CASE CONTROL STUDY IS ACTUALLY USEFUL WHEN
14 YOU ACTUALLY HAVE RARE DISEASES, AND IT'S A RETROSPECTIVE
15 STUDY. YOU DON'T HAVE TO MEASURE -- YOU -- WHAT YOU DO, YOU
16 GET A GROUP OF PATIENTS WITH A DISEASE. LUNG CANCER,
17 BRONCHIOLOALVEOLAR CELL CARCINOMA OF THE LUNG, AND A GROUP OF
18 PATIENTS WHO DON'T HAVE THE DISEASE. SO YOU HAVE THAT UP
19 FRONT.

20 SO YOU HAVE A GROUP OF PATIENTS WITH THE
21 DISEASE, GROUP OF PATIENTS WITHOUT THE DISEASE. AND THEN YOU
22 MEASURE THEIR -- YOU KNOW, THEN YOU GET THEIR EXPOSURE
23 HISTORY, AND THEN YOU SEE WHETHER SMOKERS -- YOU KNOW, WERE
24 PEOPLE WHO DEVELOPED LUNG CANCER MORE LIKELY TO BE SMOKERS
25 THAN PEOPLE WHO DIDN'T DEVELOP LUNG CANCER.

26 SO WHAT YOU'RE REALLY GETTING IS THE
27 PROBABILITY OF EXPOSURE IF YOU HAVE DISEASE AND PROBABILITY
28 OF EXPOSURE IF YOU DON'T HAVE DISEASE. IT'S NOT WHAT YOU'RE

3009

1 INTERESTED IN. WHAT YOU'RE REALLY INTERESTED IN IS THE
2 PROBABILITY OF DISEASE, OF EXPOSURE. IT'S THE EASIER WAY OF
3 DOING IT. THEY'RE THE MOST COMMON TYPE OF EPIDEMIOLOGIC
4 STUDY.

5 Q. HERE, WE HAVE, THEN, ONE OF THE MOST COMMON
6 TYPE OF EPIDEMIOLOGICAL --
7 A. THE MOST COMMON TYPE.
8 Q. BRITISH MEDICAL JOURNAL?
9 A. YES.
10 Q. 1992?
11 A. YES.
12 Q. AND THE AUTHORS ARE MORABIA AND WYNDER?
13 A. RIGHT.
14 Q. IS THAT THE SAME NAMES WHOSE NAMES WE SAW --
15 A. YES.
16 Q. -- BACK ON THE 50'S STUFF?
17 A. YES. HE'S GOTTEN AROUND. AND HE DID A
18 TREMENDOUS AMOUNT OF STUFF UNTIL HE DIED, I THINK, THE YEAR
19 BEFORE LAST.
20 HE WAS BASICALLY LOOKING AT RELATIONSHIP
21 BETWEEN SMOKING AND BAC.
22 Q. I'VE GOT THIS TABLE UP FOR THE JURY TO SEE IT,
23 AND I WANT YOU TO START OFF WITH ONE OBVIOUS FACT.
24 THE NUMBER OF CASES WHERE BEFORE WE WERE
25 TALKING IN THE HUNDREDS OF THOUSANDS OF CASES, NOW, WE'RE
26 ONLY TALKING 72 CASES.
27 A. ACTUALLY, WE'RE TALKING ABOUT 87 CASES. IF
28 YOU -- YOU SEE, THERE'S 72 CASES THAT WERE -- HAD SMOKED AND
3010
1 THERE WERE ALSO 15 CASES THAT HAD NOT SMOKED.
2 Q. OKAY. 87.
3 A. 87, YES.
4 Q. WELL, SAME POINT --
5 A. YES. RIGHT.
6 Q. -- WE'VE GONE FROM HUNDREDS OF THOUSANDS OF
7 PEOPLE --
8 A. YES. YES.
9 Q. -- TO 87.
10 A. YES.
11 Q. THAT'S IMPORTANT, ISN'T IT?
12 A. YES.
13 Q. WHY?
14 A. WELL, BECAUSE, YOU KNOW, THERE'S -- YOU KNOW, I
15 MEAN, THERE MAY BE AN ASSOCIATION, BUT IT MAY BE VERY
16 DIFFICULT TO SHOW THE ASSOCIATION IF YOU DON'T HAVE MUCH
17 POWER.
18 I MEAN, IF LUNG CANCER -- SMOKING CAUSED THE
19 100 PERCENT OF A GIVEN DISEASE, BUT YOU HAD THREE CASES OF
20 IT, IT WOULD BE VERY HARD. BASICALLY, STATISTICIANS WOULD
21 SAY, YOU DON'T HAVE ENOUGH POWER TO SHOW THAT A DIFFERENCE
22 EXISTS. SO A DIFFERENCE MAY EXIST, BUT YOU CAN'T SHOW IT
23 JUST BECAUSE THERE'S NOT ENOUGH POWER TO SHOW THAT.
24 Q. SO BEFORE WE GO TOO FAR INTO THIS STUDY AND THE
25 NEXT ONE --
26 A. YES.
27 Q. -- IS IT A SIGNIFICANT FACT FOR EVERYONE TO
28 KEEP IN MIND THAT BECAUSE THIS IS A VERY SMALL POPULATION
3011
1 COMPARED TO THOSE OTHER STUDIES --
2 A. YES.
3 Q. -- THAT, WHAT?
4 WHAT, YOU WANT TO LOOK AT THIS WITH A GRAIN OF
5 SALT OR WHAT?
6 HOW WOULD YOU PUT IT?
7 A. WELL, YES. I MEAN, IT -- IT -- YOU -- I MEAN,
8 THIS IS -- THIS IS NOWHERE NEAR AS DEFINITIVE AS WHAT WE
9 TALKED ABOUT BEFORE. BUT, YOU KNOW, THIS IS THE ONLY TWO

10 DATA -- TWO STUDIES THAT WE HAVE. SO WE HAVE -- SO I PUT
11 THEM TOGETHER IN TABLES.
12 Q. SO THANK YOU.
13 HAVING SAID THAT, WHAT DOES IT MEAN?
14 A. WELL, YOU KNOW, I COULD -- YOU'LL SEE. BEFORE
15 WE TALKED, YOU USED THE TERM INCIDENCE RATIO. ON THIS HERE,
16 WE'RE TALKING ABOUT ODDS RATIO. I COULD ACTUALLY DEFINE THAT
17 FOR YOU, IF YOU'D LIKE. BUT YOU CAN ALSO JUST DECIDE TO TAKE
18 MY WORD FOR IT. THEY'RE PRETTY MUCH THE SAME THING. HERE.
19 YOU KNOW, IF IT'S USED APPROPRIATELY.
20 SO YOU'LL SEE THAT THERE'S AN ODDS RATIO OF
21 2.9 -- LET'S SAY, 3. SO THAT WOULD MEAN THAT IF YOU HAD --
22 THAT THERE WAS A THREEFOLD INCREASE RISK OF DEVELOPING BAC IF
23 YOU SMOKED THAN IF YOU DID NOT SMOKE. AND WHAT THAT
24 IS -- I CAN'T READ IT. LET ME LOOK AT MY OWN. I'LL PUT MY
25 READING GLASSES ON. I CAN SEE IT HERE. AND THE ATTRIBUTABLE
26 FRACTION WAS 65 PERCENT OF THE LUNG CANCERS WERE RELATED
27 TO -- I'M SORRY. 65 PERCENT OF THE BAC'S IN THIS STUDY WERE
28 RELATED TO SMOKING.

3012

1 Q. NOW, I'D JUST LIKE TO DRAW EVERYONE'S ATTENTION
2 BACK --
3 A. YES.
4 Q. -- TO THE EARLIER ADENOCARCINOMA CHARTS THAT I
5 PUT UP THERE.
6 DO YOU REMEMBER THOSE, DOCTOR?
7 A. YES.
8 Q. IN THE EARLY ONES, THE ORIGINAL ODDS WERE
9 67 PERCENT OR TWO OUT OF -- I'M SORRY -- .67, TWO OUT OF
10 THREE.
11 A. YES.
12 Q. DO YOU REMEMBER THAT?
13 A. YES. THAT WAS, I THINK, THE -- YES.
14 Q. AND WITH THE PASSAGE OF TIME AND WITH THE
15 INCREASE IN ADENOCARCINOMAS, THE ODDS WENT FROM TWO THIRDS UP
16 TO 94, 95 PERCENT?
17 A. 94, 95 PERCENT, YES.
18 Q. IN THIS CASE HERE, THE 65 --
19 A. YES.
20 Q. -- IS AWFULLY CLOSE TO THE 67 --
21 A. YES.
22 Q. -- IN THE ADENOCARCINOMA.
23 A. YES. YES. YES.
24 Q. I JUST WANT TO START OFF WITH THAT.
25 A. YES. YES.
26 Q. OKAY. WHAT ABOUT BELOW THE LINE?
27 A. YEAH.
28 Q. WHAT DOES THIS MEAN?

3013

1 A. ON THE TOP, JUST SORT OF LOOKING AT EVER
2 SMOKERS, EVER SMOKERS IS CURRENT PLUS -- OR A FORMER SMOKER.
3 PEOPLE WHO ARE CURRENT SMOKERS PROBABLY HAVE MORE EXPOSURE.
4 THEY HAVE TO STOP. SO THE BOTTOM, BASICALLY, TAKES OUT THOSE
5 PEOPLE WHO HAD STOPPED SMOKING. SO WHAT YOU SEE, INSTEAD OF
6 HAVING 87 CASES, WE ONLY HAVE 51, BECAUSE WE HAD TO ELIMINATE
7 36 CASES.
8 Q. WHO DID YOU ELIMINATE?
9 A. WE ELIMINATED FORMER SMOKERS.
10 Q. OKAY.
11 A. I COULD HAVE PUT ANOTHER ONE SHOWING FORMER
12 VERSUS NEVER, BUT I DIDN'T DO THAT FOR THIS TABLE.
13 Q. ALL RIGHT.
14 A. AND, YOU KNOW, THERE -- THESE ARE -- THIS

15 ASSOCIATION IS A BIT STRONGER. IT'S 3.3. IT IS
16 STATISTICALLY SIGNIFICANT. AND YOU KNOW, 70 -- YOU KNOW, IF
17 YOU'RE A CURRENT SMOKER AND HAD BAC, IT LOOKS LIKE 70 PERCENT
18 OF THE BAC'S WERE RELATED TO SMOKING.

19 Q. NOW, REMEMBER, YOU MENTIONED BIOSTATISTICS TO
20 US BEFORE?

21 A. YES.

22 Q. DID YOU DO THESE STATISTICS?

23 DID DO YOU ALL THIS MATH HERE YOURSELF?

24 A. YES. RIGHT.

25 Q. AND DID YOU, BEFORE YOU CAME OUT HERE TO
26 TESTIFY, RUN YOUR MATH PAST YOUR FORMER BIOSTATISTICS
27 PROFESSOR --

28 A. YES.

3014

1 Q. -- OVER AT THE HARVARD SCHOOL OF PUBLIC
2 HEALTH --

3 A. YES.

4 Q. -- AND GET HIS BLESSING?

5 A. YES.

6 Q. HERE'S 8002.103.

7

8 (I.D. 8002.013 - CASE CONTROL STUDY)

9

10 Q. BY MR. PIUZE: NOW, THIS IS ANOTHER CASE
11 CONTROL STUDY?

12 A. RIGHT.

13 Q. AGAIN, 1992?

14 A. RIGHT.

15 Q. BUT WE'VE GOT A DIFFERENT AUTHOR HERE?

16 A. RIGHT.

17 Q. FALK, ET AL.

18 A. YES.

19 Q. FALK, F-A-L-K?

20 A. HE WAS THE AUTHOR OF THE PAPER. AND LOOKS LIKE
21 THE PAPER ACTUALLY CAME FROM THE NATIONAL CANCER INSTITUTE,
22 THE EPIDEMIOLOGY AND BIOSTATISTICS PROGRAM DIVISION OF CANCER
23 BIOLOGY. HE'S FROM THE NATIONAL CANCER INSTITUTE.

24 Q. THANK YOU.

25 A. OR SHE. RONI, R-O-N-I, IS THE FIRST NAME. I
26 DON'T KNOW THAT PERSON PERSONALLY.

27 Q. "EPIDEMIOLOGY AND BRONCHIOLOALVEOLAR
28 CARCINOMA."

3015

1 A. CARCINOMA.

2 Q. BUT THIS CASE STUDY IS EVEN SMALLER, ISN'T IT?

3 A. RIGHT. 21 -- A TOTAL OF 21 PAGES.

4 Q. THAT'S REALLY SMALL, ISN'T IT?

5 A. YES.

6 Q. DO YOU WANT TO USE AN EVEN BIGGER GRAIN OF SALT
7 WITH THIS --

8 A. YES.

9 Q. -- BECAUSE OF THE SIZE?

10 A. YES.

11 Q. WHERE DID I PUT MY PEN?

12 YOU'VE GOT ALL THE ANSWERS.

13 A. YES. THERE IS ONE INTERESTING POINT.

14 Q. WHAT?

15 A. WELL -- I MEAN, FRANKLY, IF YOU LOOK AT THE
16 TOP, THE ODDS RATIO IS 2.7, BUT IT'S ACTUALLY NOT
17 STATISTICALLY SIGNIFICANT. I MEAN, THAT DOESN'T -- THAT
18 COULD MEAN THAT THERE'S NOT A REAL ASSOCIATION, BUT IT
19 PROBABLY REFLECTS THE FACT THAT, YOU KNOW, THE ASSOCIATION

20 ISN'T THAT STRONG. AND THERE'S SO FEW PATIENTS.
21 BUT IF YOU LOOK ON THE BOTTOM THERE, WE'RE ONLY
22 COMPARING HEAVY SMOKERS, YOU KNOW, THOSE WHO HAD SMOKED MORE
23 THAN ONE AND A HALF PACKS OF CIGARETTES PER DAY. THAT'S MORE
24 THAN 30 CIGARETTES A DAY. SO WE'RE COMPARING ONLY HEAVY
25 SMOKERS TO LIFELONG SMOKERS. IT HAS VERY LITTLE POWER, A
26 TOTAL OF 10 PATIENTS.
27 BUT THERE, THE ASSOCIATION IS STRONGER. THE
28 ODDS OF DEVELOPING BRONCHIOLOALVEOLAR CARCINOMA, IF YOU'RE A
3016
1 HEAVY SMOKER, WAS SEVEN -- SEVEN FOLD. 7.2 AND --
2 Q. EXCUSE ME.
3 A. YES.
4 Q. YOU'RE LOOKING OVER HERE?
5 A. I'M LOOKING AT THE BOTTOM. AND THAT WAS
6 STATISTICALLY SIGNIFICANT.
7 SO -- AND THAT MEANS -- AND, YOU KNOW, AND
8 86 PERCENT OF THE BAC'S AMONG HEAVY SMOKERS WERE RELATED TO
9 SMOKING.
10 Q. OKAY. THANKS.
11 I ONLY WANT TO TAKE A MINUTE HERE, AND THEN I'M
12 OFF THE SUBJECT.
13 A. YES. YES.
14 Q. BUT BRIEFLY, YOU SAID THIS 2.7 FOR REASONS THAT
15 YOU KNOW AND WE DON'T --
16 A. OKAY.
17 Q. -- IS NOT OFFICIALLY STATISTICALLY SIGNIFICANT.
18 A. IT'S NOT WHAT WE CALL -- YES, IT'S NOT.
19 Q. WHY?
20 A. WELL, IF YOU ACTUALLY LOOK RIGHT NEXT TO IT,
21 THE CONFERENCE INTERVAL GOES FROM .1 -- I'M SORRY -- TO -- .8
22 TO 9.1. SO THE CONFLICT INTERVAL CROSSES 1. FOR ANYONE, THE
23 P-VALUE IS .13. IT SHOULD BE LESS THAN .05 TO BE
24 SIGNIFICANT. SO IT'S NOT SIGNIFICANT.
25 BUT IT IS SIGNIFICANT FOR HEAVY SMOKERS.
26 BECAUSE THE -- BECAUSE THERE'S A BIGGER DEPARTURE, YOU KNOW.
27 IT CAUSES SMOKING. CAUSES MORE OF THE BAC'S, IF YOU'RE A
28 HEAVY SMOKER. SO I THINK THAT'S VERY INTERESTING.
3017
1 Q. SO HEAVY SMOKERS, VERY SMALL SAMPLE?
2 A. YES. YES. TEN PATIENTS.
3 Q. 86 PERCENT?
4 A. YES.
5 Q. OR .86 CORRELATION TO SMOKING?
6 A. YES. YES.
7 Q. SO I'M OFF OF THIS SUBJECT RIGHT NOW.
8 ALTHOUGH, MR. BOEKEN, IN YOUR VIEW, NEVER HAD
9 BAC?
10 A. THAT'S CORRECT.
11 Q. EVEN IF HE DID, BAC IS CAUSED BY SMOKING?
12 A. THAT IS CORRECT.
13 Q. AND WE'RE READY FOR ANOTHER SUBJECT NOW.
14 A. OKAY.
15 Q. I'D LIKE TO TALK ABOUT A DIFFERENT KIND OF
16 STATISTIC.
17 IS THE INCIDENCE OF LUNG CANCER IN THE
18 U.S. RISING OR FALLING?
19 A. IT IS ACTUALLY NOW FALLING. JUST IN THE LAST
20 FEW YEARS.
21 Q. IS THE INCIDENCE OF DEATHS, NOT JUST LUNG
22 CANCER, BUT DEATHS, ATTRIBUTABLE TO SMOKING IN THE U.S.
23 RISING OR FALLING?
24 A. I BELIEVE -- YOU KNOW, I BELIEVE IT'S BEEN

25 FALLING, BECAUSE OF CORONARY ARTERY DISEASE. AND LUNG CANCER
26 IS ACTUALLY STARTING TO FALL. I ACTUALLY DON'T KNOW THE
27 ABSOLUTE ANSWER TO THAT QUESTION, SO --
28 Q. I SAW YOU HESITATE.
3018
1 A. YES, I DO HESITATE.
2 Q. I DON'T WANT TO PUSH YOU OFF ON A LIMB.
3 A. I THINK IT'S FALLING A LITTLE BIT.
4 Q. AND IS THE INCIDENCE OF LUNG CANCER IN THE
5 WORLD RISING OR FALLING?
6 A. IT'S RISING.
7 Q. IS THE INCIDENCE OF DEATH FROM TOBACCO IN THE
8 WORLD RISING OR FALLING?
9 A. IT'S RISING.
10 Q. LET'S STICK WITH THE UNITED STATES TO START
11 WITH.
12 IN ROUND NUMBERS, ROUGHLY HOW MANY PEOPLE ARE
13 CURRENTLY DYING OF LUNG CANCER IN THE UNITED STATES EACH
14 YEAR?
15 MR. CARLTON: OBJECTION. CUMULATIVE, YOUR HONOR.
16 THE COURT: OVERRULED.
17 A. 160,000.
18 Q. AND IF THAT'S FALLEN, WHERE HAD IT BEEN BEFORE
19 IT FELL?
20 A. OH, IT PEAKED AT ABOUT -- AT 168,000. IT'S
21 BEEN FALLING A LITTLE BIT JUST THE LAST FEW YEARS. IT HAD
22 RISEN ABSOLUTELY EVERY YEAR FOR THE LAST 50 YEARS UNTIL 1998,
23 I THINK. I HAVE THOSE FIGURES EXACTLY. I JUST -- I'M -- I
24 CAN GIVE IT TO YOU EXACTLY.
25 Q. I DON'T NEED IT --
26 A. YES. YES.
27 Q. -- PER PERSON.
28 A. YES. YES.
3019
1 Q. ON THE BROADER SIDE, WALKING AWAY FROM LUNG
2 CANCER A COUPLE OF STEPS.
3 AS FAR AS THE DEATHS OF ALL TIMES ATTRIBUTABLE
4 TO TOBACCO IN THE UNITED STATES, WHAT ARE WE TALKING ABOUT ON
5 A YEARLY FIGURE?
6 A. ABOUT 400,000 IS THE FIGURE THAT'S QUOTED THAT
7 IS WELL KNOWN.
8 Q. AND THAT'S THE ONE -- YOU'RE NOT SURE IF THAT'S
9 COMING DOWN A LITTLE OR IF THAT'S ABOUT THE SAME?
10 A. RIGHT. I MEAN, I KNOW, FOR EXAMPLE, CORONARY
11 ARTERY DISEASE HAS COME DOWN QUITE A BIT. AND SO I DON'T
12 KNOW THAT --
13 Q. DO YOU KNOW -- I'M NOT TRYING TO PRECLUDE YOU
14 HERE. I DON'T WANT YOU GETTING -- I'M NOT TRYING TO --
15 A. YES. YES.
16 Q. -- JAM YOU UP EITHER.
17 A. YES. YES.
18 Q. DO YOU HAVE AN OPINION -- AND WE CAN SEE IT'S
19 NOT A STRONG ONE HERE -- BUT DO YOU HAVE AN OPINION WHETHER
20 THE TOTAL DEATHS FROM TOBACCO IN THE U.S. ARE COMING DOWN OR
21 STAYING THE SAME OR GOING UP?
22 A. I HAVE AN OPINION, YES.
23 Q. WHAT?
24 A. I THINK THEY'RE COMING DOWN.
25 Q. HOW MANY LUNG CANCER DEATHS ARE THERE IN THE
26 WORLD EACH YEAR?
27 A. 1.3 MILLION ARE THE ESTIMATES.
28 Q. IS THAT COMING DOWN OR GOING UP?
3020

1 A. GOING UP. ALTHOUGH, IT'S ACTUALLY HARDER TO
2 GET -- I HAVE VERY SOLID DATA EVERY YEAR FROM '65 TO NOW.
3 THE WORLD FIGURES ARE ACTUALLY MUCH, YOU KNOW, SPARSER. SO
4 THERE'S A GOOD SET OF FIGURES, BUT I DON'T HAVE -- I ACTUALLY
5 DON'T HAVE GOOD FIGURES FROM TEN YEARS AGO.
6 Q. LET'S TALK -- BEFORE I GET YOU INTO THIS ANY
7 MORE, LET'S REVISIT YOUR QUALIFICATIONS A BIT IN ORDER TO
8 TALK ABOUT THIS.
9 A. YES.
10 Q. AT THE HARVARD SCHOOL OF PUBLIC HEALTH WHEN YOU
11 WERE THERE FOR A YEAR --
12 AND BY THE WAY, AFTER A YEAR, DID YOU GET THE
13 DIPLOMA OR DEGREE OR SOMETHING LIKE THAT?
14 A. YES.
15 Q. WHAT DO YOU GET?
16 A. A MASTER OF PUBLIC HEALTH, AN MPH.
17 Q. WHILE YOU WERE AT THE HARVARD SCHOOL OF PUBLIC
18 HEALTH TO GET YOUR MASTER'S DEGREE THERE, DID YOU STUDY THE
19 INTERNATIONAL -- I'VE GOT NO IDEA WHAT THE COURSE WOULD BE --
20 DID YOU STUDY TOPICS HAVING TO DO WITH TOBACCO USE
21 INTERNATIONALLY?
22 A. RIGHT. IT WAS THE ONE COURSE I TOOK THAT I
23 THOUGHT I MIGHT KNOW IT ALL, BUT I LEARNED A TREMENDOUS
24 AMOUNT.
25 Q. THAT'S THE ONE WHERE YOU THOUGHT YOU KNEW IT
26 GOING IN --
27 A. YES.
28 Q. -- AND REALIZED HOW LITTLE YOU KNEW?
3021
1 A. THAT'S CORRECT.
2 Q. WHAT WAS IT THAT YOU STUDIED?
3 A. WELL, WE STUDIED -- YOU KNOW, IT WASN'T ABOUT
4 LUNG CANCER. IT WAS REALLY ABOUT, YOU KNOW, TOBACCO
5 MARKETING, YOUTH, INTERNATIONAL PATTERNS OF SALES OF
6 CIGARETTES THROUGHOUT THE WORLD. THOSE SORTS OF ISSUES, YOU
7 KNOW. AND WE ACTUALLY TALKED POLICY. SOME OF MY --
8 Q. POLICY.
9 A. -- SOME OF MY CLASSMATES WERE YOUNGER THAN MY
10 OLDEST SON, AND WE ACTUALLY HAD SOME INTERESTING -- IT WAS
11 ACTUALLY USEFUL FOR THE CLASS TO HAVE ME IN THE CLASS. I WAS
12 FAR OLDER THAN THE PROFESSOR AND, YOU KNOW, I HAD BEEN VERY
13 INVOLVED IN THIS FIELD FOR A LONG TIME.
14 Q. ALL RIGHT. SO YOUR DATA --
15 A. YES.
16 Q. -- FOR INTERNATIONAL LUNG CANCER DEATHS --
17 A. YES.
18 Q. -- GOING BACK TEN YEARS IS SPARSE.
19 IS THAT WHAT YOU SAID?
20 A. NO. THE DATA -- YES. I MEAN, THERE'S -- I
21 MEAN, AMERICAN CANCER SOCIETY GIVES US VERY DETAILED ANNUAL
22 STATISTICS THAT I'VE BEEN FOLLOWING VERY CLOSELY ON AN ANNUAL
23 BASIS FOR MANY YEARS. AND, YOU KNOW, IN THE U.S., WE
24 ACTUALLY HAD VERY, VERY EXTENSIVE DATA.
25 THERE IS -- YOU KNOW, I MEAN, THE ACTUAL
26 INCIDENCE OF CANCERS, OF DIFFERENT CANCERS IN THE THIRD WORLD
27 COUNTRIES, YOU KNOW, ARE ESTIMATES, AND THOSE FIGURES ARE
28 MUCH SOFTER.
3022
1 Q. OKAY.
2 A. BUT THE CURRENT BEST ESTIMATE IS ABOUT
3 1.3 MILLION LUNG CANCER DEATHS IN THE WORLD IN THE YEAR 2000.
4 I HAVEN'T ACTUALLY SEEN 2001 DATA.
5 Q. THANK YOU.

6 NOW, YOU SAID THAT'S GOING UP.
7 DO YOU WANT TO -- TO ME, WHETHER YOU GO BACK
8 FIVE YEARS OR TEN YEARS, I DON'T REALLY CARE -- BUT CAN YOU
9 GO BACK A PERIOD OF TIME TO GIVE THE JURY A COMPARABLE FIGURE
10 FOR, LET'S SAY, FIVE YEARS BEFORE, TEN YEARS BEFORE?
11 A. ACTUALLY --
12 MR. CARLTON: I'LL OBJECT TO THE RELEVANCE OF
13 INTERNATIONAL INFORMATION.
14 THE COURT: IT'S BEEN IN MY MIND AS WELL.
15 MR. PIUZE: WELL, I --
16 THE COURT: PROCEED, COUNSEL, IN GOOD FAITH.
17 MR. PIUZE: YEP.
18 THE COURT: ALL RIGHT. GO AHEAD.
19 Q. BY MR. PIUZE: AS TOBACCO SALES HAVE DECREASED
20 IN THE UNITED STATES, HAS PHILIP MORRIS BEEN SHIPPING MORE
21 AND MORE OF ITS PRODUCT OVERSEAS TO OTHER COUNTRIES?
22 MR. CARLTON: OBJECTION. LACK OF FOUNDATION.
23 THE COURT: WAITING FOR RELEVANCE.
24 PROCEED.
25 MR. CARLTON: IRRELEVANT.
26 THE COURT: GO AHEAD.
27 THE WITNESS: ANSWER THE QUESTION?
28 YES. YOU KNOW --
3023
1 THE COURT: YOU MAY ANSWER THE QUESTION.
2 THE WITNESS: YES.
3 MR. PIUZE: YOUR HONOR, BEFORE I PURSUE THIS LINE, I
4 GUESS I SHOULD HAVE SOME GUIDANCE FROM THE COURT, SO --
5 THE COURT: THAT'S PROBABLY A GOOD IDEA.
6 MR. PIUZE: IT MIGHT SAVE A MINUTE OR TWO OF YOUR
7 TIME.
8 THE COURT: LET'S DO THAT.
9
10 (A CONFERENCE WAS HELD BEHIND THE BENCH,
11 WHICH WAS NOT REPORTED.)
12
13 (THE FOLLOWING PROCEEDINGS WERE HELD
14 IN OPEN COURT IN THE PRESENCE
15 OF THE JURY:)
16
17 THE COURT: ALL RIGHT.
18 MR. PIUZE, IF YOU'D PROCEED, PLEASE.
19 MR. PIUZE: I'M NOT GOING TO, THEN, YOUR HONOR. THAT
20 WAS WHERE I WAS GOING.
21 THE COURT: ALL RIGHT.
22 MR. PIUZE: SO WHERE I'M GOING IS INTO THIS SEAT.
23 THE COURT: NOTHING FURTHER, THEN?
24 MR. PIUZE: AT THIS TIME.
25 AND THANK YOU VERY MUCH.
26 THE COURT: ALL RIGHT.
27 MR. PIUZE: NO FURTHER QUESTIONS AT THIS TIME.
28 THE COURT: THANK YOU, MR. PIUZE.
3024
1 CROSS-EXAMINATION
2 BY MR. CARLTON:
3 Q. GOOD MORNING, DOCTOR.
4 A. GOOD MORNING.
5 Q. LET ME SEE NOW.
6 YOU'VE BEEN A MEDICAL ONCOLOGIST SINCE 1972,
7 HAVEN'T YOU?
8 A. NO. I GRADUATED FROM MEDICAL SCHOOL IN 1972.
9 Q. I'M SORRY. YOU GRADUATED FROM MEDICAL SCHOOL.
10 AND YOU'VE BEEN A MEDICAL ONCOLOGIST FOR HOW

11 LONG?
12 A. I WAS BOARD CERTIFIED IN 1979.
13 Q. ALL RIGHT.
14 A. FINISHED MY TRAINING IN 1979.
15 Q. AND THAT'S BASICALLY BEEN YOUR PRACTICE FOR THE
16 LAST 21, 22 YEARS WITH THE EXCEPTION OF THAT ONE YEAR?
17 A. RIGHT. AND I'M NOT -- I AM NOT DOING -- I'M
18 DOING A LITTLE BIT OF CLINICAL PRACTICE NOW, BUT I'M NOT
19 DOING A LOT.
20 Q. NOW, AS A MEDICAL ONCOLOGIST, WHAT YOU DID, IF
21 I RECALL CORRECTLY, IS BASICALLY, YOU DEAL WITH TREATMENT OF
22 PEOPLE WHO HAVE CANCER?
23 A. THAT IS CORRECT.
24 Q. THROUGH CHEMOTHERAPY?
25 A. YES.
26 Q. AND YOU HAVE DONE OVER THE YEARS RESEARCH IN
27 THAT AREA AS WELL AS CLINICAL TREATMENT?
28 A. WELL, THAT IS CLINICAL TREATMENT. I'VE
3025
1 ACTUALLY -- I'VE DONE SOME RESEARCH ON CHEMOTHERAPY.
2 Q. OKAY. AND YOU'VE ALSO DONE RESEARCH, I THINK,
3 ON SCREENING?
4 A. YES.
5 Q. IF I REMEMBER CORRECTLY.
6 A. VERY EXTENSIVELY.
7 Q. SO FOR 21, 22 YEARS, YOU'VE BEEN INVOLVED IN
8 TREATING PATIENTS WITH CHEMOTHERAPY, RESEARCHING
9 CHEMOTHERAPY, RESEARCHING SCREENING AND TEACHING, I THINK --
10 A. YES.
11 Q. -- IN THESE SAME AREAS?
12 A. YES.
13 Q. AND YOU HAVEN'T TOLD US MUCH ABOUT CHEMOTHERAPY
14 TODAY, HAVE YOU?
15 A. NO.
16 Q. AND WHAT WAS IT, JULY OF 1999, YOU DECIDED YOU
17 WANTED TO GO TO THE SCHOOL OF PUBLIC HEALTH, RIGHT?
18 A. THE DECISION WAS MADE BEFORE THAT, BUT THAT'S
19 WHEN I ENTERED IT.
20 Q. THAT'S WHEN YOU WENT?
21 A. THAT'S WHEN I WENT, YES.
22 Q. AND THAT WAS BECAUSE, UP TO THAT POINT, YOU
23 WERE -- IN RELATION TO YOUR SCREENING WORK, YOU WERE GETTING
24 INVOLVED OR SORT OF EDGING TOWARDS EPIDEMIOLOGY, BUT YOU
25 DIDN'T REALLY HAVE THE VOCABULARY TO DO THAT?
26 A. WELL, I DEVELOPED IT. ACTUALLY, I HAD -- I WAS
27 ONE OF TWO SPONSORS OF THE INTERNATIONAL CONFERENCE ON
28 PREVENTION AND EARLY DIAGNOSIS OF LUNG CANCER, WHICH WAS HELD
3026
1 WITH THE AMERICAN CANCER SOCIETY SUPPORT IN ITALY IN
2 DECEMBER OF 1998.
3 SO I MEAN, I HAD ACTUALLY RUN THAT CONFERENCE
4 AND WAS BEING INVITED TO GIVE TALKS ON EARLY DETECTION OF
5 LUNG CANCER. I WAS DEVELOPING THE VOCABULARY, BUT I STILL
6 HADN'T DEVELOPED THE METHOD. I COULDN'T HAVE DONE THE
7 ANALYSIS THAT WE TALKED ABOUT EARLIER BEFORE LAST YEAR.
8 Q. RIGHT. I THINK YOU SAID EARLIER THAT UP TO
9 THAT POINT, YOU LACKED THE FACILITY IN THE NUMBERS, IN THE
10 METHODS OF --
11 A. RIGHT.
12 Q. -- OF MANIPULATING THE NUMBERS?
13 A. I LEARNED A LITTLE BIT. BUT NOT -- COULDN'T
14 WORK INDEPENDENTLY.
15 Q. SO YOU WENT TO SCHOOL FOR A YEAR?

16 A. YES.
17 Q. AND NOW, YOU'VE COME BACK TO TESTIFY AS AN
18 EXPERT IN NUMBERS --
19 A. AMONG OTHER THINGS.
20 Q. -- MANIPULATING NUMBERS?
21 A. YES.
22 Q. AND BASICALLY, THAT'S -- WELL, LET ME STOP
23 THERE.
24 IN THE COURSE OF YOUR ONE YEAR AT PUBLIC HEALTH
25 SCHOOL, HOW MANY CLASSES DID YOU TAKE THAT INVOLVED TOBACCO?
26 A. WELL, I MEAN, ONE THAT INVOLVED TOBACCO -- BUT
27 ACTUALLY, I -- AS I SAID, IN BASIC EPIDEMIOLOGY AND
28 BIostatISTICS COURSES, WHEN WE TALK ABOUT EXPOSURES AND
3027
1 DISEASES, THE EXAMPLE THAT IS ALMOST ALWAYS TALKED ABOUT IS
2 SMOKING AND LUNG CANCER.
3 I ALSO TOOK A COURSE ON CANCER PREVENTION AND A
4 COURSE ON CANCER SCREENING THAT DID INVOLVE TOBACCO,
5 OBVIOUSLY, BUT IT WASN'T FOCUSED ON TOBACCO. SO THERE WAS
6 ONLY ONE COURSE THAT WAS EXCLUSIVELY RELATED TO TOBACCO. BUT
7 THERE WAS PARTS OF MANY OTHERS THAT DEALT WITH THE ISSUES AS
8 WELL.
9 Q. YOU DIDN'T TAKE ANY COURSE ON LOW-TAR
10 CIGARETTES, DID YOU?
11 A. I DID NOT, NO.
12 Q. YOU DIDN'T TAKE ANY COURSE ON COMPENSATION?
13 A. ACTUALLY -- WELL, I TAKE THAT BACK. I MEAN,
14 YOU KNOW, LOW-TAR CIGARETTES WERE DISCUSSED IN THE
15 INTERNATIONAL TOBACCO COURSE. WE ACTUALLY TALKED -- HAD A
16 SESSION ON THE, QUOTES, THE SAFE CIGARETTES.
17 Q. THE ONE COURSE THAT YOU TOOK DEALT WITH
18 INTERNATIONAL MARKETING, MARKETING OF CIGARETTES, LOW-TAR
19 CIGARETTES, DEALT WITH EVERY ISSUE HAVING TO DO WITH
20 CIGARETTES PRETTY MUCH, RIGHT?
21 A. IT DIDN'T DEAL WITH THE CHEMISTRY OF TOBACCO,
22 BUT IT DEALT WITH THE POLICY ISSUES OF TOBACCO.
23 Q. SO YOU DIDN'T TAKE A COURSE ON SMOKING
24 COMPENSATION, DID YOU?
25 A. SMOKING COMPENSATION.
26 Q. YOU DON'T KNOW THAT TERM?
27 A. ARE YOU TALKING ABOUT -- WELL, I DO KNOW THE
28 TERM, BUT THERE ARE DIFFERENT CONTEXTS. I'M NOT SURE WHAT
3028
1 YOU MEAN BY THAT.
2 Q. WELL, WE'VE HEARD A LOT ABOUT COMPENSATION IN
3 RELATION TO SMOKING HABITS.
4 A. OH, SURE. YOU MEAN HOW THE CIGARETTE -- HOW
5 DEEPER PUFFS RELATED TO LOW TAR?
6 IS THAT WHAT YOU'RE REFERRING TO?
7 YOU'RE NOT TALKING ABOUT MONETARY COMPENSATION
8 FOR DAMAGES?
9 Q. YOU'RE RIGHT. ABSOLUTELY RIGHT. SMOKING
10 HABITS. NOT MONETARY.
11 A. I'M SORRY.
12 Q. SMOKING HABITS, NOT MONEY --
13 A. OKAY. SURE.
14 Q. -- COMPENSATION?
15 A. YES.
16 Q. YOU HAD NO COURSES IN COMPENSATION?
17 A. COURSES IN?
18 Q. IN SMOKING COMPENSATION. YOU HAD NO COURSES
19 THAT --
20 A. I DO NOT BELIEVE THAT THERE WOULD BE A COURSE

21 GIVEN ON THAT. THAT'S -- YOU KNOW, THAT IS AN ISSUE THAT IS
22 DISCUSSED IN THE CONTEXT OF A MORE GENERAL DISCUSSION ON
23 PROBLEMS OF NICOTINE ADDICTION.
24 Q. YOU DIDN'T HAVE ANY COURSES IN NICOTINE
25 ADDICTION EITHER, DID YOU?
26 A. NO, I DIDN'T HAVE A SPECIFIC COURSE ON
27 ADDICTION.
28 Q. YOU HAVEN'T DONE ANY RESEARCH IN NICOTINE
3029
1 ADDICTION, HAVE YOU, OF YOUR OWN?
2 A. I ACTUALLY AM -- I'M ACTUALLY -- I HAVE A GRANT
3 APPLICATION IN TO TALK -- TO STUDY THE ISSUE OF -- OF YOUNG
4 ADULTS SMOKING CESSATION. I THINK IF WE CAN GET PEOPLE TO
5 STOP -- KIDS START SMOKING BECAUSE IT'S COOL TO DO SO. AND
6 THERE'S A LOT OF PEER PRESSURE TO DO SO. AND WE DON'T REALLY
7 FOCUS OUR ATTEMPTS TO GET PEOPLE TO STOP UNTIL THEY'RE YOUNG
8 ADULTS.
9 AND I THINK IN ADDITION TO SCREENING FOR THOSE
10 WHO SMOKED FOR DECADES, I THINK IF WE CAN GET YOUNG PEOPLE --
11 THOSE IN THEIR 20'S TO STOP -- WE WOULD BASICALLY ELIMINATE
12 THE VAST MAJORITY OF SMOKING-RELATED MORTALITY, INCLUDING
13 THOSE FROM LUNG CANCER.
14 SO WE HAVE A GRANT APPLICATION IN, AND I'VE
15 DEVELOPED SOME COLLABORATIONS WHERE I'M WORKING. SO
16 ACTUALLY, THE ANSWER IS, I AM BEGINNING TO DO SO. THERE IS
17 A -- THERE IS SOME PEOPLE WHO ARE MORE SENIOR TO ME IN THAT
18 AREA THAT I'M WORKING WITH.
19 SO THE ANSWER IS NOT TRUE THAT I'VE HAD
20 NOTHING. BUT THAT'S CERTAINLY NOT BEEN THE MAJOR FOCUS OF MY
21 CAREER. THAT IS TRUE.
22 Q. SO THE ANSWER TO MY QUESTION, THEN, IS, NO, YOU
23 HAVE NOT CONDUCTED ANY RESEARCH ABOUT NICOTINE ADDICTION?
24 A. THE ANSWER TO YOUR QUESTION IS, NO, I HAVE NOT
25 DONE ANY YET THAT HAS BEEN PUBLISHED, BUT IT IS A BIG FOCUS
26 OF MY ACTIVITIES AT THE PRESENT TIME. WHETHER THAT'S A YES
27 OR NO, YOU CAN DECIDE.
28 Q. YOU HAVEN'T DONE ANY RESEARCH ON HOW PEOPLE
3030
1 SMOKE --
2 A. NO.
3 Q. -- HAVE YOU?
4 A. I HAVEN'T.
5 Q. AND THAT INCLUDES NO RESEARCH ON HOW DEEPLY
6 PEOPLE INHALE?
7 A. THAT'S CORRECT.
8 Q. WHY PEOPLE SMOKE DIFFERENT WAYS?
9 YOU HAVEN'T DONE ANY RESEARCH ON THAT?
10 A. I'VE NOT DONE ANY INDEPENDENT RESEARCH ON THAT,
11 NO.
12 Q. I'M TRYING TO UNDERSTAND WHAT YOU HAVE DONE.
13 YOU TALKED ABOUT THE INCREASE IN
14 ADENOCARCINOMA, RIGHT?
15 A. YES.
16 Q. AND IF I UNDERSTAND CORRECTLY, THE BASIS FOR
17 YOUR TESTIMONY REGARDING THE INCREASE IN ADENOCARCINOMA IS
18 THAT YOU HAVE READ THE ARTICLE BY -- IS IT DR. THUN?
19 A. UH-HUH.
20 Q. MR. THUN. DR. THUN.
21 YOU'VE READ THAT, RIGHT?
22 YOU HAVE TALKED TO DR. BURNS.
23 A. UH-HUH.
24 Q. ANYTHING ELSE?
25 A. YOU KNOW, I FORESEE -- YOU KNOW, I THINK -- YOU

26 KNOW, I'M SOMEBODY WHO, I BELIEVE, LEARNS WELL AND HAS A LOT
27 OF EXPERIENCE IN THE AREA OF THORACIC ONCOLOGY, AND I BELIEVE
28 THAT THE AREA OF THORACIC ONCOLOGY IS VERY MUCH FILLED WITH
3031

1 MISPERCEPTIONS FROM A PUBLIC POLICY PERSPECTIVE. SO ONE OF
2 MY OBJECTIVES IS TO TRY TO EDUCATE PUBLIC POLICY
3 ORGANIZATIONS AND THE GENERAL PUBLIC ABOUT WHERE WE SHOULD BE
4 HEADING.

5 AND THOSE TABLES THAT I'VE GIVEN YOU, THE
6 REASON FOR -- THAT'S PART OF AN ARTICLE THAT I'M WRITING
7 THAT, HOPEFULLY, WILL ACTUALLY CONTRIBUTE NEW DATA, BECAUSE
8 THE DATA IS THERE. BUT I BELIEVE IT WILL ACTUALLY GIVE -- I
9 THINK THERE'S A LOT OF CONFUSION AMONG PRACTITIONERS ABOUT --
10 I GUESS WE'VE HEARD, WELL, IN PART, ADENOCARCINOMA WAS NOT
11 RELATED TO IT. THERE'S BEEN PAPERS. THEY'RE NOT WIDELY
12 READ, SO I'M TRYING TO PUT THIS TOGETHER IN A WAY THAT WILL
13 EDUCATE THE MEDICAL COMMUNITY AND THE PUBLIC IN TERMS OF
14 THIS.

15 SO I'M, YOU KNOW, I'VE BEEN A BUSY CLINICIAN.
16 MY CAREER NOW IS REALLY THAT OF A PUBLIC HEALTH PHYSICIAN.
17 AND THIS IS VERY RELEVANT TO THAT.

18 Q. WELL, YOU TOLD US TODAY THAT THERE HAS BEEN A
19 RISE IN THE INCIDENCE OF ADENOCARCINOMA?

20 A. YES, SIR.

21 Q. ALL RIGHT. THERE WERE NUMBERS FOR THAT. AND
22 YOU'VE TOLD US THAT THE RISE IN THE INCIDENCE OF
23 ADENOCARCINOMA IS DUE TO PEOPLE INHALING MORE DEEPLY BECAUSE
24 OF LOW-TAR CIGARETTES, RIGHT?

25 A. THAT IS THE EXPLANATION THAT IS BEST ACCEPTED.

26 Q. AND THAT EXPLANATION IS BASED ON YOUR READING
27 OF THE MICHAEL THUN ARTICLE AND YOUR CONVERSATION WITH
28 DR. BURNS?

3032

1 A. YOU KNOW, I -- I CAN BE VERY SINGLE-MINDED, AND
2 I HAVE, IN THE NATURE OF SORT OF DEVELOPING, YOU KNOW, MY
3 APPROACH TO PUBLIC POLICY AS IT RELATES TO THORACIC ONCOLOGY,
4 HAVE READ THOUSANDS OF ARTICLES.

5 SO THE ANSWER IS, I THINK OF THE ARTICLES THAT
6 I'VE READ, IT IS BEST DESCRIBED IN THAT MICHAEL THUN ARTICLE,
7 AND I THINK THAT IS THE MOST IMPORTANT ARTICLE THAT HAS
8 APPEARED. BUT THERE ARE MANY, MANY OTHER ARTICLES THAT HAVE
9 ACTUALLY DISCUSSED THE SAME ISSUE.

10 AND I DID SAY, I HAVE READ ALL THE RECORDS,
11 ARTICLES FROM 1950 TO 1955. I CERTAINLY HAVE NOT READ ALL
12 THE ARTICLES ON SMOKING AND LUNG CANCER OR LOW-TAR NICOTINE,
13 BUT I'VE READ EXTENSIVELY IN THIS AREA. SO I KNOW THIS AREA
14 AS WELL AS ANYBODY WHO'S REALLY NOT CONTRIBUTED AND NOT
15 WORKED ON LOW-TAR NICOTINE CIGARETTES. SO IT'S VERY RELEVANT
16 TO MY WORK, SO IT'S SOMETHING THAT I KNOW IN DETAIL.

17 Q. AND THIS MORNING, IN LAYING OUT YOUR
18 FOUNDATION, THE BASIS FOR YOUR OPINION, YOU MENTIONED ONLY
19 THE THUN ARTICLE AND YOUR CONVERSATIONS WITH DR. BURNS,
20 DIDN'T YOU?

21 A. I GUESS THAT -- WELL, I JUST MENTIONED OTHER
22 THINGS NOW.

23 Q. NOW, LET'S LOOK AT TABLE 11, WHICH IS SOMETHING
24 YOU DISCUSSED A LITTLE EARLIER TODAY.

25 I JUST WANT TO MAKE SURE THAT I UNDERSTAND
26 THIS. THIS IS THE CPS-I STUDY.
27 DO YOU HAVE A COPY OF IT?

28 A. I DO. BUT LET ME JUST FIND IT.

3033

1 YES.

2 Q. OKAY. AGAIN, THIS -- AND I THINK -- YEAH, THIS
3 AND TABLE 12, ALL OF THE INFORMATION IN THIS STUDY CAME FROM
4 THE THUN ARTICLE, RIGHT, THE ACTUAL UNDERLYING DATA?
5 A. RIGHT. IT CAME FROM THE THUN ARTICLE. JUST
6 WHAT CAME FROM THE THUN ARTICLE ARE THE PERSON TIME AND THE
7 CASES. THE OTHER THINGS WERE CALCULATED BY ME.
8 Q. NOW, LET ME UNDERSTAND THIS CORRECTLY.
9 IF WE LOOK HERE, CASES -- THERE WERE A TOTAL OF
10 23 EVER SMOKERS AND 5 NEVER SMOKERS, RIGHT?
11 A. THAT'S CORRECT.
12 Q. FOR THE MALES. AND THAT'S ALL WE'VE --
13 A. THAT'S CORRECT.
14 Q. -- WE WERE CONCERNED WITH.
15 TOTAL OF 28 CASES --
16 A. CORRECT.
17 Q. -- IN ADENOCARCINOMA?
18 A. YES.
19 Q. NOW, ONE OF THE -- AND MAYBE THERE'S A
20 DIFFERENCE HERE. I'M JUST ASKING YOU TO CLARIFY THIS.
21 LET'S LOOK AT THIS ONE. TABLE 9. THIS WAS THE
22 MORABIA AND WYNDER STUDY, WHICH YOU SAID WAS BASED ON A VERY
23 SMALL SET OF CASES, AND THERE WERE 87 THERE?
24 A. THAT'S RIGHT.
25 Q. WOULD IT BE CORRECT THAT THE NUMBER OF CASES
26 WHICH WAS INVOLVED IN CPA-I, WHICH WAS 28, IS ALSO A VERY
27 SMALL NUMBER OF CASES?
28 A. THAT'S THE WHOLE POINT. IF YOU COMPARE --
3034
1 Q. BUT IF YOU LOOK AT CPS-II, IT'S NO LONGER 28?
2 A. YES. YES.
3 Q. BUT RIGHT NOW --
4 A. YEAH. SURE.
5 Q. -- JUST LOOKING AT CPS-II, 8 IS VERY SMALL FOR
6 A STUDY?
7 A. BUT IT WAS DISEASE --
8 Q. AND IT WOULD RESULT IN A RELATIVELY WEAK
9 FINDING?
10 A. YOU REALLY HAVE MISSED THE POINT.
11 Q. I'M STRUGGLING HERE --
12 A. ADENOCARCINOMA WAS A RARE DISEASE AT THAT POINT
13 IN TIME. SO YOU KNOW, SO THERE WERE -- SO THERE ARE ONLY 28
14 CASES OF ADENOCARCINOMA --
15 Q. ALL RIGHT.
16 A. -- THAT DEVELOPED IN THAT POPULATION.
17 AND THIS WAS THE -- YOU KNOW, AGAIN, THIS IS
18 ALSO A -- THIS WAS THE ENTIRE POPULATION OF -- YOU KNOW, HAD
19 A MILLION PEOPLE, BUT THERE WEREN'T THAT MANY SMOKERS.
20 MOST -- YES.
21 Q. THAT'S FINE.
22 A. YES.
23 Q. MY ONLY POINT IS THAT IT'S HARD TO DRAW A HARD
24 CONCLUSION FROM 28 CASES?
25 A. THE -- I MEAN, YOU KNOW, THE INCIDENCE RATIO
26 WAS 3 AT THAT POINT IN TIME. IT WASN'T THAT STRONG. AND IT
27 ACTUALLY CAME CLOSE TO 1. SO, NO. SURE, I WOULD DEFINITELY
28 AGREE WITH YOU, THAT BASED ON THE DATA FROM THE CPS-I STUDY,
3035
1 YOU KNOW, AS OPPOSED TO THE PUBLICATIONS BY WYNDER AND DOLL
2 FROM A DECADE EARLIER WHERE THERE WAS REALLY NO ASSOCIATION,
3 THERE ACTUALLY IS A STATISTICALLY SIGNIFICANT ASSOCIATION,
4 BUT IT'S STILL FAIRLY WEAK BASED ON THAT POPULATION THAT WAS
5 COLLECTED BEGINNING IN 1959. IT'S WHEN YOU LOOK AT THE
6 CPS-II STUDY THAT IT GETS MUCH MORE POWERFUL.

7 Q. ALL RIGHT. HERE'S THE CPS-II STUDY.
8 AND THIS INVOLVES 79 EVER SMOKERS?
9 A. RIGHT.
10 Q. AND 6 NEVER SMOKERS, RIGHT?
11 A. RIGHT.
12 Q. THAT'S EXACTLY THE SAME NUMBER, ISN'T IT, AS
13 THE WYNDER AND GRAHAM -- OR WYNDER AND -- MORABIA AND WYNDER
14 STUDY, 87 -- I'M SORRY. IT'S EVEN LESS. IT'S 85?
15 A. YOU KNOW, BUT OF THE 80 -- OF THE 85 CASES OF
16 ADENOCARCINOMA THAT DEVELOPED, 79 OF THOSE 85 CASES WERE IN
17 SMOKERS. AND, YOU KNOW, THE STATISTICAL TECHNIQUE ALLOWS YOU
18 TO YOU INDICATE THAT IF YOU'RE A SMOKER, THAT YOUR RISK OF
19 DEVELOPING IT IS 17 TIMES -- 16-1/2 TIMES GREATER.
20 AND YOU KNOW, FROM A STATISTICAL PERSPECTIVE,
21 THAT IS, YOU KNOW, YOU KNOW, IT MAY BE THAT THE RISK IS NOT
22 EXACTLY 16.5. IT MAY BE 10 OR IT MAY BE 20. BUT WE KNOW
23 FROM THE NUMBERS NEXT TO IT THAT THE REAL RISK IS SOMEWHERE
24 BETWEEN 7 AND 46. AND WE HAVE ENOUGH STATISTICAL EVIDENCE
25 FOR THAT. AND THE NUMBER BELOW THAT, WHICH WE HAVEN'T TALKED
26 ABOUT, THE P-VALUE, IS VERY SMALL. THIS CAN OCCUR BY CHANCE.
27 Q. WELL, THE POINT --
28 A. THIS IS CLEARLY A VERY POWERFUL ASSOCIATION.
3036
1 Q. THE POINT, DOCTOR, IS THIS: 85 CASES IS STILL
2 A SMALL NUMBER OF CASES, ISN'T IT, TO DRAW A STRONG
3 CONCLUSION?
4 A. THIS IS VERY POWERFUL EVIDENCE. I MEAN, YOU
5 KNOW, 85 CASES -- YOU KNOW, I MEAN, LUNG CANCER IS THE MOST
6 COMMON CAUSE OF DEATH. BUT STILL, YOU KNOW, IF YOU'RE A
7 SMOKER, MOST PEOPLE WHO SMOKE DON'T DEVELOP LUNG CANCER.
8 PROBABLY IT'S ABOUT 15 PERCENT WHO DO.
9 SO, YOU KNOW, HAVING 85 ADENOCARCINOMAS OF THE
10 LUNG IS, IN A PERSPECTIVE COHORT STUDY -- YOU KNOW, IN A CASE
11 CONTROLLED STUDY, YOU KNOW, THERE'S A DIFFERENCE. THE CASE
12 CONTROL STUDY, YOU KNOW, USUALLY IS WHEN YOU DO -- WHEN YOU
13 HAVE RARE DISEASES, YOU'D LIKE TO DO A CASE CONTROL STUDY.
14 SO IN THE CASE CONTROL STUDIES OF DOLL, THEY
15 WERE ABLE TO COLLECT 1300 CASES OF LUNG CANCER FROM ENGLAND
16 BECAUSE THEY WENT OVER, YOU KNOW, THEY GOT IT FROM MULTIPLE
17 SOURCES.
18 IN THE BAC, THERE WERE -- THEY WOULD HAVE LIKED
19 TO COLLECT FAR MORE. IT WAS A CASE CONTROL STUDY. THEY
20 WOULD HAVE TAKEN ANYONE WITH BAC. THIS IS A PROSPECTIVE
21 COHORT STUDY. SO THEY TAKE A MILLION PEOPLE. A MILLION
22 PEOPLE IS A LOT OF PEOPLE. AND 76, IT'S -- WELL, IT'S,
23 ACTUALLY, IF YOU WANT TO PUT THE MEN AND WOMEN TOGETHER --
24 WHAT IS IT -- 85 AND 60. SO WHAT DO YOU HAVE?
25 150 OF THEM DIED OF ADENOCARCINOMA. YOU KNOW,
26 I HAPPENED TO SEPARATE IT HERE IN TERMS OF MALES AND FEMALES.
27 BUT, YOU KNOW, THE MORE YOU SUBDIVIDE IT, THE FEWER CASES
28 YOU'RE GOING TO HAVE.
3037
1 Q. DOCTOR --
2 A. BUT THE POINT --
3 Q. -- MAY I STOP YOU FOR HALF A SECOND?
4 A. SURE. YES.
5 Q. IS IT NOT TRUE THAT THE CPS-II STUDY INVOLVED
6 85 PEOPLE WITH ADENOCARCINOMA AND THE MORABIA/WYNDER STUDY,
7 WHICH YOU SAID SHOULD BE TAKEN WITH A GREAT GRAIN OF SALT,
8 INVOLVED 87?
9 A. YOU ARE TALKING ABOUT APPLES AND ORANGES. WHEN
10 YOU TALK ABOUT A RETROSPECTIVE CASE CONTROL STUDY WHERE THE
11 AUTHORS OF THAT STUDY WILL COLLECT AS MANY CASES AS THEY CAN

12 FROM WHATEVER SOURCES THEY CAN, AND THEN LOOK -- YOU KNOW, SO
13 THEY HAVE CASES AND CONTROLS AND THEN MEASURE EXPOSURES.
14 THAT IS VERY DIFFERENT THAN A PERSPECTIVE
15 COHORT STUDY WHERE YOU'RE TAKING A MILLION PEOPLE AND YOU'RE
16 FOLLOWING THEM FOR MANY, MANY YEARS, AND THEN YOU'RE LOOKING
17 AT AS MANY CASES AS YOU GET.
18 YOU KNOW, 85 CASES OF ADENOCARCINOMA, YOU KNOW,
19 IS -- IS 85 CASES. NOW, IF, IN FACT, THE RISK RATIO, IF IT
20 ONLY INCREASED THE RISK A LITTLE BIT, 85 CASES WOULD NOT BE
21 ENOUGH TO SHOW A DIFFERENCE. ON THE OTHER HAND, SMOKING
22 PRODUCES A 16-FOLD INCREASE IN THE RISK OF ADENOCARCINOMA.
23 SO GIVEN HOW POWERFUL A RISK FACTOR FOR ADENOCARCINOMA
24 SMOKING IS, THOSE 85 CASES WERE MORE THAN ENOUGH TO SHOW IT.
25 IN THE MORABIA PAPER, YOU KNOW, IF YOU WANT TO
26 TALK ABOUT THE STATISTICS, WE WOULD BE GLAD TO DO THAT. BUT
27 IF YOU -- LET ME JUST GET THE MORABIA PAPER.
28 Q. I DON'T THINK THERE'S A QUESTION PENDING.

3038

1 A. YES.
2 MR. PIUZE: I THOUGHT HE WAS ANSWERING THE QUESTION.
3 THE WITNESS: YES.
4 MR. PIUZE: YOUR HONOR --
5 THE COURT: WELL, SIR, IF YOU --
6 MR. CARLTON: I DON'T KNOW WHERE HE IS.
7 THE COURT: IF YOU WOULD WISH TO BREAK IN, I WOULD
8 ALLOW YOU THAT POINT.
9 DO YOU WISH TO ASK HIM ANOTHER QUESTION?
10 MR. CARLTON: YES, I WOULD, YOUR HONOR.
11 THE COURT: ALL RIGHT.
12 Q. BY MR. CARLTON: LET ME ASK YOU. YOU'VE SAID
13 INCIDENCE RATE IS PRETTY MUCH THE SAME AS ODDS RATIO, RIGHT?
14 WE CAN TAKE IT --
15 A. PRETTY MUCH THE SAME.
16 IF YOU'D LIKE, I'LL BE GLAD TO EXPLAIN WHAT THE
17 DIFFERENCE IS, BUT IT PROBABLY WOULD NOT BE RELEVANT.
18 Q. WHAT IS A RELATIVE RISK?
19 A. RELATIVE RISK IS A MORE GENERAL TERM, AND THE
20 REALITY IS BOTH THE -- I COULD HAVE LISTED INCIDENCE -- I --
21 IT WOULD NOT BE THE LEAST BIT DISHONEST TO ACTUALLY JUST HAVE
22 CALLED THE INCIDENCE RATE RATIO AND THE ODDS RATIO RELATIVE
23 RISKS. THEY REALLY ARE.
24 Q. SO FOR OUR PURPOSES, THEY ALL SORT OF BLEND
25 TOGETHER?
26 A. SO FOR YOUR PURPOSES, THEY'RE THE SAME THING.
27 TECHNICALLY, THERE ARE SLIGHT DIFFERENCES, WHICH ARE REALLY
28 NOT IMPORTANT TO THE PURPOSES OF THIS DISCUSSION.

3039

1 Q. ALL RIGHT.
2 A. BUT I'D BE GLAD TO EXPLAIN IT TO YOU, IF YOU'D
3 LIKE.
4 Q. YOU'RE FAMILIAR WITH "THE JOURNAL OF LUNG
5 CANCER," AREN'T YOU?
6 A. YES.
7 Q. WOULD YOU CONSIDER THAT TO BE A REPUTABLE
8 JOURNAL IN THE FIELD?
9 A. IT'S THE -- IT'S A REPUTABLE JOURNAL. IT'S
10 CERTAINLY NOT A SENTINEL -- IT'S NOT A -- IT'S NOT ONE OF THE
11 BEST JOURNALS BY ANY MEANS, BUT IT'S FINE.
12 Q. AND IN THIS AREA, YOU WOULD CONSIDER ARTICLES
13 AND PUBLICATIONS IN THAT JOURNAL AS BEING RELEVANT TO --
14 A. THEY'RE PEER REVIEWS, BUT I'VE NEVER SUBMITTED
15 A PAPER TO THAT. MOST OF THE ARTICLES ARE NOT
16 EARTH-SHATTERING ARTICLES.

17 Q. OKAY. BUT THEY'RE PEER REVIEWED?
18 A. THEY'RE PEER REVIEWED.
19 Q. THEY'RE THE KIND OF THINGS THAT RESEARCHERS IN
20 THE FIELD WOULD GO TO --
21 A. YEAH.
22 Q. -- IN EVALUATING ANY ISSUE IN THAT FIELD --
23 A. YEAH.
24 Q. -- RIGHT?
25 A. IT'S THE JOURNAL OF THE INTERNATIONAL
26 ASSOCIATION FOR STUDY OF LUNG CANCER, WHICH IS AN
27 ORGANIZATION THAT I'M A MEMBER OF.
28 Q. ARE YOU FAMILIAR WITH THIS STUDY, THE "EFFECT
3040
1 OF CIGARETTE SMOKING ON MAJOR HISTOLOGICAL TYPES OF LUNG
2 CANCER: A META-ANALYSIS"?
3 A. ACTUALLY, I'M NOT.
4 Q. CAN YOU TELL US WHAT A META-ANALYSIS IS?
5 A. YES. A META-ANALYSIS IS WHERE YOU ACTUALLY TRY
6 TO POOL DATA. INDIVIDUAL STUDIES OFTEN LOOK -- WE TALKED
7 ABOUT IT EARLIER -- OFTEN LACKS HISTOLOGICAL POWER. THERE
8 MAY BE A DIFFERENCE, BUT YOU DON'T HAVE ENOUGH PATIENTS TO
9 SHOW THAT DIFFERENCE.
10 SO IF YOU CAN ACTUALLY POOL THE RESULTS FROM
11 MANY STUDIES, IT INCREASES STATISTICAL POWER. IT IS A
12 TECHNIQUE THAT IS BOTH USED AND ABUSED. THAT IS, I'M VERY
13 INTERESTED IN META-ANALYSIS, AND I'VE NOT SEEN THAT PAPER,
14 BUT I ASSURE YOU, I WILL GET A COPY OF IT, UNLESS YOU'D BE
15 KIND ENOUGH TO GIVE ME A COPY OF IT.
16 Q. ALL RIGHT. AND WE'LL NOTICE -- I THINK MAYBE
17 YOU CAN'T READ IT -- IT SAYS "LUNG CANCER 31," "2001"?
18 A. YEAH.
19 Q. SO THAT'S -- I DON'T HAVE THE MONTH. BUT IT'S
20 OBVIOUSLY A VERY RECENT ARTICLE.
21 A. YES.
22 Q. AND I'D LIKE TO JUST POINT OUT A FEW PARTS OF
23 THIS.
24 MR. PIUZE: EXCUSE ME. BEFORE YOU DO.
25 YOUR HONOR, IF HE HASN'T READ IT, RELIED ON
26 IT --
27 THE COURT: THAT'S THE PROBLEM WE HAD YESTERDAY.
28 MR. CARLTON: WELL, IT'S -- YOUR HONOR, PERHAPS THIS
3041
1 IS A GOOD TIME TO TAKE A BREAK.
2 THE COURT: ALL RIGHT. THAT'S FINE.
3 THE WITNESS: MAY I READ THE PAPER?
4 THE COURT: SIR, WE'LL WAIT UNTIL THE JURY HAS LEFT.
5 THE WITNESS: OKAY.
6 THE COURT: ALL RIGHT.
7 LADIES AND GENTLEMEN, IT'S NOW NOON.
8 WE'LL SEE YOU ALL AT 1:30 THIS AFTERNOON.
9 DON'T DISCUSS THE CASE WITH ANYONE.
10
11 (THE FOLLOWING PROCEEDINGS WERE HELD
12 IN OPEN COURT OUT OF THE PRESENCE
13 OF THE JURY:)
14
15 THE COURT: OKAY. LET'S TALK ABOUT THE EXPERT
16 DISCOVERY. THERE WAS AN ISSUE REGARDING EXPERT DISCOVERY.
17 MR. PIUZE: I THINK THEY'VE WITHDRAWN THAT ISSUE.
18 MR. LE BERTHON: I DON'T -- I DON'T THINK WE HAVE.
19 MR. PIUZE: I'M SORRY. THAT WAS ON LEWAK. I SEE. I
20 APOLOGIZE. I THOUGHT WE WERE ON -- CAN WE TALK ABOUT THIS
21 WITNESS FIRST?

22 AS A MATTER OF FACT, IF THE COURT WOULD RATHER,
23 HE CAN LEAVE NOW. IT'S UP TO THE COURT.
24 THE COURT: I DON'T HAVE ANYTHING TO SAY.
25 MR. PIUZE: 24 YEARS, AND I GUESS I NEED GUIDANCE.
26 THE COURT: LET'S GO ON THE RECORD ON THIS.
27 WE'RE OUTSIDE THE PRESENCE OF THE JURY AT THE
28 PRESENT TIME.

3042

1 MR. PIUZE: OKAY. AND AT MR. CARLTON'S REQUEST, I'VE
2 ASKED DR. STRAUSS TO STEP OUTSIDE.
3 THERE'S TWO DIFFERENT ISSUES I WANT TO TALK
4 ABOUT. IT'S LUNCH, SO I'M GOING TO DO IT VERY BRIEFLY.
5 A, THE EASIER ONE.
6 THE APPLICATION OF EVIDENCE CODE 721. 721 HAS
7 TO DO WITH THE CROSS-EXAMINATION OF EXPERT WITNESSES AND WHAT
8 AN EXPERT WITNESS CAN BE CROSS-EXAMINED ON.
9 TRADITIONALLY, IT WAS ONLY READ, REVIEWED OR
10 RELIED ON. THE EVIDENCE CODE WAS CHANGED APPROXIMATELY TWO
11 YEARS AGO, MAYBE. AND THE EVIDENCE CODE WAS CHANGED IN SUCH
12 A WAY SO THAT IF IT IS ESTABLISHED THAT SOMETHING IS AN
13 AUTHORITATIVE SOURCE, THE WITNESS CAN BE CROSS-EXAMINED ON
14 THAT REGARDLESS OF WHETHER OR NOT THE WITNESS HAS READ,
15 REVIEWED OR RELIED.
16 NOW, HERE'S AN ISSUE -- AND I'M -- THIS IS
17 SOMETHING I'M NOT SURE OF. I'M NOT TRYING TO PUSH AN ISSUE,
18 BUT I'M LOOKING TO THE COURT FOR GUIDANCE HERE.
19 THE COURT: HERE'S THE DEAL. WHAT I'M DOING IS, I'M
20 LISTENING TO THE FOUNDATION TO SEE IF THIS WITNESS
21 ESTABLISHES AS AN AUTHORITATIVE SOURCE, BECAUSE THAT'S ALL
22 YOU HAVE GOING FOR YOU RIGHT NOW. YOU HAVEN'T BROUGHT -- IT
23 WORKS BOTH WAYS ON BOTH SIDES.
24 MR. PIUZE: SURE.
25 THE COURT: IF NO ONE HAS TESTIFIED IN FRONT OF ME YET
26 ABOUT THE AUTHORITATIVENESS OF THIS SOURCE, I JUST CAN'T LET
27 IT IN. IF THIS WITNESS WILL ACKNOWLEDGE THE AUTHORITATIVE
28 NATURE OF THE SOURCE, THEN I'M GOING TO LET IT -- PROBABLY

3043

1 LET IT GO.
2 MR. PIUZE: MY POINT -- AND THAT'S CORRECT.
3 OBVIOUSLY, I DON'T DISAGREE WITH THAT. MY POINT IS JUST A
4 LITTLE MORE SUBTLE.
5 WHEN WE HAVE A JOURNAL, SUCH AS THIS, WHERE --
6 LET'S JUST SAY, FOR THE SAKE OF ARGUMENT, THE WITNESS SAYS,
7 OKAY, THAT JOURNAL, ALTHOUGH IT'S NOT A DOUBLE A, IT'S AN
8 AUTHORITATIVE SOURCE. WHAT ABOUT INDIVIDUAL ARTICLES WITHIN
9 THE JOURNAL?
10 SEE, THAT'S WHERE I NEED THE GUIDANCE FROM.
11 THE COURT: THE INITIAL ARTICLES WITHIN THE JOURNAL
12 HAVE -- THE WITNESS HAS TO ACKNOWLEDGE THEM AS AN
13 AUTHORITATIVE SOURCE.
14 MR. PIUZE: EXCELLENT. THANK YOU.
15 SECOND ISSUE.
16 MR. LEITER: WELL --
17 MR. PIUZE: WELL, NO. THEY CAN TALK TO THAT LATER.
18 I'M SORRY. YOU WANT TO TALK TO IT NOW?
19 GO AHEAD.
20 THE COURT: I'LL JUST SAY THIS. YOU'RE GOING TO HAVE
21 A DIFFICULT TIME PERSUADING ME THAT EVERYTHING IN A
22 PARTICULAR JOURNAL IS AN AUTHORITATIVE SOURCE. I'M JUST NOT
23 GOING TO ACCEPT THE JOURNAL'S LABEL, ITS STAMP ON IT, AS
24 BEING, PER SE, AN AUTHORITATIVE SOURCE.
25 OKAY.
26 MR. LEITER: I UNDERSTAND YOUR HONOR'S POSITION.

27 THE COURT: NOT TO SAY THE COURT WON'T WEIGH THAT IN
28 ITS CONSIDERATION, PARTICULARLY IF IT'S A PEER-REVIEWED
3044

1 ARTICLE.

2 OKAY.

3 MR. PIUZE: AND JUST SO IT'S PERFECTLY CLEAR. I
4 WASN'T EVEN GOING FOR A POSITION THERE. I WAS JUST GOING FOR
5 A CLARIFICATION.

6 MR. LEITER: IF I MIGHT BE HEARD FOR JUST A MOMENT.

7 THE RULE READS (READING):

8

9 "THE PUBLICATION HAS BEEN
10 ESTABLISHED AS A RELIABLE AUTHORITY BY THE
11 TESTIMONY OR ADMISSION OF THE WITNESS OR BY
12 OTHER EXPERT TESTIMONY OR BY JUDICIAL
13 NOTICE."

14

15 THE AMBIGUITY AS TO WHETHER THAT REFERS TO THE
16 JOURNAL AS A WHOLE OR TO A PARTICULAR ARTICLE -- AND WE'LL
17 TAKE A LOOK AT THAT, BECAUSE WE UNDERSTAND YOUR HONOR'S
18 POSITION. BUT WHERE HE HAS TESTIFIED THAT HE'S A MEMBER OF
19 THE SOCIETY, THAT IT IS A PEER REVIEW JOURNAL, AND ALTHOUGH
20 IT'S NOT ONE OF THE TOP ONES, IT'S ONE OF THE ONES WHICH HAS
21 LEGITIMATE, ALTHOUGH NOT EARTHSHAKING ARTICLES IN IT, I THINK
22 HE SAID, THE QUESTION IS, DOES HE AVOID CROSS-EXAMINATION ON
23 SCIENTIFIC ARTICLES IN JOURNALS THAT HE RECOGNIZES AND
24 CREDITS BY SIMPLY SAYING, I HAVEN'T READ THAT ONE.

25 THE COURT: NO.

26 MR. LEITER: I DON'T THINK THAT THAT'S --

27 THE COURT: NO. NO, HE DOES NOT.

28 I'LL JUST SAY TO COUNSEL, IF YOU'RE GOING TO

3045

1 CROSS-EXAMINE -- THIS RULE HAS BEEN CHANGED. FOR YEARS, IT
2 WAS JUST READ AND REVIEWED. THIS CHANGE IN THE LAW DOESN'T
3 GIVE US A CARTE BLANCHE TO JUST CROSS-EXAMINE ON ANYTHING.
4 THE COURT HAS TO, IT SEEMS TO ME ANYWAY, THAT
5 THE COURT HAS TO LOOK AT EACH INDIVIDUAL ITEM AND LISTEN TO
6 THE WITNESS AND SEE IF THE WITNESS WILL ACKNOWLEDGE THAT IT'S
7 AN AUTHORITATIVE SOURCE. UNLESS YOU HAVE SOME OTHER -- SOME
8 OTHER PERSON TO GET ON THE WITNESS STAND AND DO THAT FOR YOU.
9 AND I'LL PAY PARTICULAR ATTENTION TO THE FOUNDATION.

10 MR. LEITER: I UNDERSTAND THAT, YOUR HONOR. AND OUR
11 POINT WAS AS TO THIS ARTICLE, THE ONLY PIECE THAT'S MISSING,
12 HE SAID HE HASN'T READ THAT ONE, THAT PARTICULAR ARTICLE.

13 AND HE DID NOT SAY ANYTHING -- HE VALIDATED --

14 MR. CARLTON: HE SAID HE WANTED TO GET A COPY OF IT.

15 THE COURT: WELL, YOU MIGHT BE -- ALL RIGHT. THIS

16 PARTICULAR --

17 MR. LEITER: AND HE'S LOOKING FORWARD TO IT.

18 THE COURT: IN THIS PARTICULAR INSTANCE, I'D BE MORE

19 THAN HAPPY TO GO OVER THE LUNCH HOUR --

20 JUST BEFORE WE START, COULD YOU JUST GIVE ME A
21 LITTLE PIECE OF THIS PARTICULAR TESTIMONY WHEN HE WAS
22 CROSS-EXAMINED ON THIS JOURNAL?

23 MR. CARLTON: AGAIN, YOUR HONOR, THIS IS SUCH A NEW
24 ARTICLE THAT WE COULD HARDLY EXPECT -- THE NEWER THINGS ARE,
25 THE LESS CHANCE THERE'S GOING TO BE THAT SOMEBODY'S
26 PREVIOUSLY READ IT OR RELIED ON IT. AND SO THAT'S A FACTOR,
27 I THINK.

28 THE COURT: BUT ALSO, THE NEWER IT IS, THE MORE IT MAY

3046

1 BE THAT ITS AUTHORITATIVENESS MAY BE IN QUESTION AS WELL.

2 ALL RIGHT.

3 MR. PIUZE: IF I COULD. I THINK THE ISSUE ISN'T
4 WHETHER HE'S READ IT OR NOT, AND I WOULDN'T SAY THAT'S THE
5 ISSUE. BUT IF THEY COULD ESTABLISH THROUGH HIS TESTIMONY OR
6 ANYONE'S TESTIMONY THAT THESE ARE RECOGNIZED PEOPLE IN THE
7 FIELD, THAT WOULD BE AN ALTERNATIVE WAY TO GO.
8 THE COURT: THE OLD RULE ABOUT RELIED ON GAVE IT THE
9 AUTHORITATIVE NATURE BECAUSE, BY DEFINITION, HE WOULDN'T RELY
10 ON IT UNLESS HE THOUGHT IT WAS AUTHORITATIVE. SO IT'S A
11 QUESTION. YOU KNOW, THEY'VE CHANGED THAT.
12 ALL RIGHT.

13 MR. PIUZE: HERE'S MY NEXT -- I APOLOGIZE. I DON'T
14 WANT TO JUMP THE GUN.

15 THE COURT: I WANTED TO MOVE HERE, BUT YOU HAVE
16 SOMETHING ELSE.

17 MR. PIUZE: I DO HAVE SOMETHING ELSE. WE WERE OFF THE
18 RECORD DURING THE END STAGES, THE EXTREME END STAGES OF MY
19 EXAMINATION OF THIS WITNESS, AND THE OFFER OF PROOF I MADE
20 OFF OF THE RECORD WHERE I WANTED TO GO, I'D LIKE TO MAKE ON
21 THE RECORD AND I'D --

22 THE COURT: PLEASE.

23 MR. PIUZE: FOR THE FIRST TIME IN THIS TRIAL, I'D LIKE
24 TO SPEND JUST A VERY BRIEF AMOUNT OF TIME TO TRY TO GET THE
25 COURT TO CHANGE ITS MIND.

26 HERE'S WHERE I WANTED TO GO, AND HERE'S WHY I
27 THINK THE COURT SHOULD LET IT INTO EVIDENCE.

28 THE COURT: FIRST OF ALL, LET'S STATE THE OFFER OF
3047

1 PROOF. THE OFFER OF PROOF WAS -- I ASKED COUNSEL, WHERE ARE
2 YOU GOING WITH THIS; AND COUNSEL SAID TO THE COURT,
3 PHILIP MORRIS IS EXPORTING DEATH OVERSEAS.
4 AT THAT POINT, I SAID, STOP. RIGHT?

5 NOW, IF COUNSEL HAS SOME OTHER APPROACH TO
6 THIS, I'M READY TO LISTEN.

7 MR. PIUZE: OKAY. I DIDN'T -- IF I SAID "DEATH," IT
8 WAS BECAUSE I WAS REALLY SHORTHANDING IT TO THE UTMOST.

9 THE COURT: ALL RIGHT.

10 MR. PIUZE: HERE'S THE EVIDENCE THAT I WOULD LIKE TO
11 GET IN. U.S. BASED COMPANIES CURRENTLY -- AND THIS ISN'T AN
12 ALL OR NOTHING PROPOSITION. IF SOME OF THESE THINGS ARE OUT
13 OF BOUNDS, SO BE IT.

14 (READING:)

15

16 "THESE U.S. BASED TOBACCO
17 COMPANIES SUPPLY ABOUT 20 PERCENT OF THE
18 NEARLY 6 TRILLION CIGARETTES SMOKED AROUND
19 THE WORLD EACH YEAR. AS LOCAL, STATE AND
20 FEDERAL ANTI-TOBACCO LAWS HAVE REDUCED
21 SMOKING BY ALMOST 20 PERCENT DURING THE PAST
22 DECADE IN THE U.S., TOBACCO COMPANIES HAVE
23 INCREASED THEIR EXPORTS 260 PERCENT.

24 "IN 1996, FOR EXAMPLE,
25 PHILIP MORRIS INCREASED" -- I'M SORRY --
26 "PHILIP MORRIS SOLD 70 PERCENT OF ITS
27 DOMESTIC PRODUCTION OUTSIDE OF THE UNITED
28 STATES IN THE OVERSEAS MARKET. THE

3048

1 PREDICTIONS ARE THAT BY 2025, 15 PERCENT OF
2 THE WORLD SMOKERS WILL LIVE IN DEVELOPED
3 COUNTRIES AND THE REST WILL LIVE IN WHAT IS
4 NOW UNDEVELOPED COUNTRIES.

5 "THE WORLD HEALTH ORGANIZATION
6 PREDICTS 10 MILLION PEOPLE WILL DIE ANNUALLY
7 FROM TOBACCO-RELATED DISEASES AT THAT TIME.

8 ONLY 30 PERCENT IN THE DEVELOPED WORLD; 70
9 PERCENT TO THEIR EXPORT TARGETS IN THE
10 DEVELOPING WORLD."
11
12 NOW, I'M READING ALL THIS OUT OF THE JOURNAL OF
13 THE AMERICAN MEDICAL ASSOCIATION. AND THIS IS ONE OF TWO
14 ARTICLES. THE OTHER ONE IS AUTHORED BY KOOP, EVERETT,
15 KESSLER. I MEAN, BIG, BIG HEAVYWEIGHTS, AS HEAVY AS IT GETS.
16 THIS MAN IS QUALIFIED TO TALK ABOUT STATISTICS.
17 AND THIS MAN IS QUALIFIED TO TALK ABOUT INTERNATIONAL
18 STATISTICS.
19 AS FAR AS THE PUNITIVE DAMAGE ASPECTS --
20 THE COURT: HOLD ON. LET'S BACK UP. STATISTICS
21 RELATING TO HIS MEDICAL OPINIONS. WHAT IN THE WORLD WOULD
22 THE EXPORTING PRACTICES OF PHILIP MORRIS HAVE TO DO WITH THIS
23 PARTICULAR WITNESS' MEDICAL OPINIONS?
24 MR. PIUZE: HE'S -- NO. BECAUSE HE'S OUTSIDE OF THE
25 REALM OF MEDICAL OPINIONS. HE IS A PUBLIC HEALTH OFFICIAL
26 MENTORED BY THE HARVARD SCHOOL OF PUBLIC HEALTH. HE'S GOT A
27 MASTER'S DEGREE IN PUBLIC HEALTH.
28 AND THE SECOND PART OF HIS TESTIMONY WAS WITH
3049
1 THE PUBLIC HEALTH -- ORIGINALLY, IF THE COURT WILL REMEMBER
2 MY DIRECT EXAMINATION, I TRIED TO ONLY QUALIFY HIM ONLY AS A
3 DOCTOR FOR THE FIRST TIME, AND THEN I WAS GOING TO REQUALIFY
4 HIM AS A PUBLIC HEALTH OFFICIAL. I WOUND UP PRETTY MUCH
5 DOING IT ALL. HE'S NOT JUST A DOCTOR, NOT JUST A TREATING
6 ONCOLOGIST, AND HE'S NOT JUST A PROFESSOR AT THE HARVARD
7 MEDICAL SCHOOL.
8 THIS GUY IS A PUBLIC HEALTH OFFICIAL, AND ONE
9 OF HIS INTERESTS, AS HE CLEARLY SAID TO THE COURT AND THE
10 JURY, ISN'T TREATING PEOPLE TO MAKE THEIR LIVES GO ON TWO OR
11 THREE OR SIX MONTHS LONGER AFTER THEY GET IT. IT'S FROM
12 PREVENTING IT TO HAPPEN. AND THAT'S WHY HE STOPPED BEING A
13 MEDICAL TREATING DOCTOR AND BECAME A PUBLIC HEALTH OFFICIAL
14 SO HE CAN TRY TO STOP IT.
15 THE COURT: ALL RIGHT.
16 MR. PIUZE: SO THIS IS HIS FIELD.
17 THE COURT: THE QUESTION I WOULD ASK TO COUNSEL IS
18 THIS: WHAT INTEREST DOES THE LAW OF CALIFORNIA HAVE IN
19 PUNISHING PHILIP MORRIS FOR ITS CONDUCT OVERSEAS?
20 MR. PIUZE: WELL, I GUESS THERE ARE TWO KINDS OF
21 ANSWERS TO THAT ONE THAT I CAN GIVE. OFF THE CUFF AND IS ME,
22 THE TRIAL LAWYER, IN MY FINAL ARGUMENT MODE, AND THE OTHER,
23 WHICH I'D PREFER TO GIVE AFTER I DISCUSS IT WITH MY LEGAL
24 WHISPERING IN MY EAR DURING LUNCH.
25 THE COURT: I THINK THAT'S PROBABLY A GOOD IDEA ON
26 THAT ONE.
27 AS TO THE DISCOVERY.
28 MR. LE BERTHON: ADAM LE BERTHON FOR PHILIP MORRIS.
3050
1 ON SATURDAY, WE CONDUCTED THE DEPOSITION OF
2 BERNARD LEWAK. HE'S A CPA AND ONE OF PLAINTIFF'S ECONOMIC
3 DAMAGE EXPERTS.
4 AT THAT TIME WE HAD AN OUTSTANDING REQUEST,
5 REALLY, FOR THE ENTIRE FILES OF ALL OF PLAINTIFF'S EXPERT
6 WITNESSES. MR. LEWAK APPEARED AND DID NOT BRING WITH HIM HIS
7 ENTIRE FILE. HE BROUGHT WITH HIM ONLY A SUBSET. THOSE BEING
8 THE DOCUMENTS THAT HE DEEMED TO BE RELEVANT.
9 WE DISCUSSED IT AT THAT TIME ON THE RECORD.
10 AND MR. PIUZE AND THE WITNESS BOTH AGREED THAT THE ENTIRETY
11 OF HIS FILES, THAT IS, ALL OF THE MATERIALS THAT WERE
12 PROVIDED TO HIM EITHER BY MR. PIUZE OR DIRECTLY BY

13 MR. BOEKEN, WILL BE PROVIDED TO US ON TUESDAY AT HIS OFFICES.
14 WHEN WE HAD A PHOTOCOPY SERVICE THERE, THE
15 PHOTOCOPY SERVICE WENT AND THEY WERE NOT PROVIDED WITH ALL OF
16 THESE MATERIALS.
17 I SPOKE WITH MR. PIUZE LAST NIGHT, AND HE
18 INDICATED THAT HE HAD SINCE HAD A CHANGE OF HEART AND WAS NOT
19 WILLING TO PRODUCE TO US ALL OF THESE MATERIALS ON THE
20 GROUNDS THAT THEY WERE NOT RELIED UPON BY THE EXPERT.
21 WE THINK THAT'S INAPPROPRIATE. I THINK THE
22 MATERIALS SHOULD BE PRODUCED IN ACCORDANCE WITH HIS EARLIER
23 AGREEMENT. THEY ARE RELEVANT TO US. AND GIVEN THAT THEY
24 WERE PROVIDED TO THE EXPERT, WHETHER OR NOT HE SAYS HE RELIED
25 UPON THEM OR NOT, THEY ARE PROPERLY DISCOVERABLE.
26 MR. PIUZE: PART OF THAT ISN'T CORRECT. AND THE PART
27 THAT ISN'T CORRECT -- I AGREE WITH HIS LEGAL ANALYSIS. HE
28 DOESN'T HAVE TO RELY ON THEM. IF HE REVIEWED THEM, THEY'RE
3051

1 FAIR GAME. HE DIDN'T REVIEW THEM. THAT'S THE PART THAT
2 ISN'T CORRECT.
3 MR. LEWAK TOLD ME RICHARD BOEKEN HAD BROUGHT IN
4 TWO HUGE PLASTIC CONTAINERS OF MATERIAL, ONE OF WHICH WAS,
5 BASICALLY, HIS GROCERY BILLS, MEDICAL BILLS AND EVERYTHING.
6 LEWAK NEVER WANTED IT, NEVER ASKED FOR IT, AND TOLD BOEKEN HE
7 WASN'T GOING TO LOOK AT IT, AND HE TOLD ME HE DIDN'T LOOK AT
8 IT.
9 THEREFORE, NO REVIEW. THE QUESTION ISN'T
10 WHETHER HE RELIED ON IT. THE QUESTION IS WHETHER HE REVIEWED
11 IT OR NOT. HE TOLD ME HE DIDN'T REVIEW IT, AND WHEN HE TOLD
12 ME HE DIDN'T REVIEW IT, THAT'S NOT FAIR GAME.
13 THE COURT: THE PROBLEM IS, THE OTHER SIDE DOESN'T
14 BELIEVE THAT, AND THEY HAVE A RIGHT TO TEST HIM ON WHETHER OR
15 NOT HE REVIEWED IT. THEY HAVE A RIGHT TO TEST THE TRUTH OF
16 HIS ASSERTION.
17 SO WHATEVER WAS GIVEN TO HIM, IT WOULD SEEM TO
18 THE COURT, IS FAIR GAME. IT MAY NOT EVER BE ADMISSIBLE IN
19 COURT OR USABLE FOR PURPOSES OF CROSS-EXAMINATION, BUT FOR
20 THE PURPOSES OF HIS ASSERTION, IT WOULD SEEM TO ME THAT THEY
21 WOULD HAVE A RIGHT TO TEST IT.
22 MR. PIUZE: WELL, HOW WOULD THEY POSSIBLY TEST IT?
23 THE COURT: TAKE THE DOCUMENTATION AND MAYBE TAKE HIS
24 DEPOSITION ON IT, SINCE THEY HAVEN'T BEEN --
25 MR. PIUZE: THEY DID TAKE HIS DEPOSITION.
26 THE COURT: NOT ON THE MATERIALS THAT HE REFUSED TO
27 PROVIDE.
28 MR. PIUZE: WELL, IT ISN'T -- I THINK "REFUSED" ISN'T
3052

1 EXACTLY THE RIGHT WORD. HE WAS SITTING IN HIS OFFICE, AND HE
2 BROUGHT ALL OF THE STUFF THAT HE REVIEWED. WE HAD A SEMANTIC
3 DIFFERENCE HERE ABOUT REVIEWED AND RELIED ON. HE TOLD ME HE
4 HAD NOT REVIEWED THE OTHER DOCUMENTS. HAS NOT REVIEWED AT
5 ALL --
6 THE COURT: HOW DO YOU KNOW THAT'S TRUE?
7 MR. PIUZE: WELL, I DON'T KNOW. HOW DOES ANYONE KNOW?
8 THE COURT: THAT'S RIGHT. HOW DO THEY KNOW?
9 MR. PIUZE: WELL, WE COULD SWITCH THIS TO ANY EXPERT
10 IN THE WORLD.
11 THE COURT: WE SURE COULD.
12 MR. PIUZE: AND I COULD SAY TO THE EXPERT, BRING YOUR
13 WHOLE HOUSE HERE AND THE EX --
14 THE COURT: WE'RE TALKING ABOUT DOCUMENTS THAT WERE
15 PROVIDED BY THE PLAINTIFF TO THE EXPERT.
16 MR. PIUZE: AGAINST THE EXPERT'S -- AGAINST THE
17 EXPERT'S SPECIFIC REQUEST. THIS GUY'S A CPA IN THE MIDDLE OF

18 TAX SEASON. HE'S MY PRIVATE CPA. HE'S DOING ME A FAVOR. HE
19 SAYS, I DON'T WANT THIS JUNK. AND WHEN BOEKEN BROUGHT IT, HE
20 PUT IT IN THE CORNER AND DIDN'T LOOK AT IT.
21 NOW, HE CAN SAY THAT UNDER OATH. HOW WILL
22 THEIR LOOKING AT MR. BOEKEN'S PRIVATE STUFF THAT HAS NOTHING
23 TO DO WITH THIS CASE CHANGE THEIR ABILITY TO CROSS-EXAMINE
24 HIM ON IT?
25 THE COURT: ALL RIGHT. HAVE HIM PRODUCE IT TO ME.
26 WHATEVER IT IS, BRING IT IN THE COURTROOM. GIVE IT TO ME.
27 I'LL TAKE IT IN-CAMERA --
28 MR. PIUZE: TOMORROW?
3053

1 THE COURT: -- AND TAKE A LOOK AT IT. AND THEN MAKE A
2 DECISION, WHICH MAY INCLUDE ALLOWING THE DEFENSE COUNSEL TO
3 TAKE A LOOK AT IT.
4 MR. LEITER: AND ONE FINAL POINT.
5 WHEN YOUR HONOR IS LOOKING AT IT, WE WOULD
6 PROBABLY LIKE TO BE HEARD ON THE ISSUE OF THE RELATIONSHIP OF
7 THESE MATERIALS TO WHAT MR. LEWAK SAID AND WHAT MR. LEWAK'S
8 OPINIONS ARE GOING TO BE.
9 THE COURT: DO YOU HAVE HIS DEPOSITION?
10 MR. LE BERTHON: WE DO.
11 THE COURT: GIVE ME A COPY OF IT. LET ME READ IT
12 TONIGHT.
13 MR. LEITER: THANK YOU, YOUR HONOR.
14 MR. PIUZE: THANK YOU FOR YOUR TIME.
15 THE COURT: ALL RIGHT, COUNSEL.
16
17 (AT 12:20 P.M., A LUNCH RECESS WAS TAKEN
18 UNTIL 1:30 P.M. OF THE SAME DAY.)
19
20
21
22
23
24
25
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27
28